

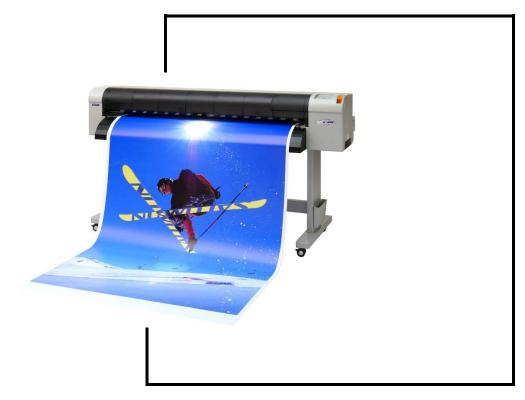
# **MUTOH**

# User's Guide



*VJ-1204 Eco-Solvent Ultra Printer* 

## FOR EUROPE ONLY!







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www.mutoh.eu www.mutoh.be

## IMPORTANT NOTICE

## For users in Europe

This is a Class A product approved for industrial environments.

In a domestic environment this product may cause radio interference in which case you may be required to take adequate measures.

Change the direction of the receiving antenna or feeder.

This product is subject to the WEEE regulations.



Environmental information Disposal of your old product



Your product is designed and manufactured with high quality materials and components, which can be recycled and reused.

When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.

Please inform yourself about the local separate collection system for electrical and electronic products.

Please act according to your local rules and do not dispose of your old products with your normal household waste. The correct disposal of your old product will help prevent potential negative consequences for the environment and human health.



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## **ABOUT THIS GUIDE**

## **Purpose and Target Readers**

Thank you for purchasing a Mutoh ValueJet 1204 printer!

This guide explains preparations before use and operation procedures for MUTOH's Full Colour Inkjet printer VJ-1204.

This guide is prepared for the owners and operators of this product.

Before using the printer, fully understand the contents and directions in this guide.

## **Guide Configuration**

Section	Contents
1 Safety instructions	This chapter explains about the printer installation, warning terms which the operator needs to know, caution items and warning labels stuck on the printer main unit.
2 Product overview	This chapter explains about the features of the printer along with the names and functions of each part.
3 Installing the unit This chapter explains how to install the printer.	
4 Handling the printer	This chapter explains how to handle the printer.
5 Periodical maintenance	This chapter explains how to perform the maintenance.
6 Troubleshooting	This chapter describes possible troubles during the use of this product and countermeasures.
7 Appendix	Interface specifications & options

- 1 Safety instructions through 4 Handling the printer must be read before using the printer.
- Read 5 Periodical maintenance through if necessary.





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## **1 SAFETY INSTRUCTIONS**

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## 1.1 INTRODUCTION

This chapter explains about the printer installation, warning terms which the operator needs to know, caution items and warning labels stuck on the printer main unit.



When performing installation and operation of the printer, be sure to follow the directions and warnings mentioned in this document.

## 1.2 WARNINGS, CAUTIONS AND NOTES

The contents of alarm displays included in this User's Guide and warning labels stuck on the main body of the printer are classified into three categories, according to degree of danger.

Understand the meaning of the following warning terms and follow the contents (instructions) in this guide.

Warnings	Meaning		
⚠ Important ⚠	If ignored, it would lead to dangerous situations where death or serious injury may be caused.		
⚠ Caution ⚠	If ignored, it would lead to a dangerous situation, causing slight or middle class illness, or damage to the product or parts of the product.		
⚠ Notes ⚠	Used for a special caution and information that must be emphasized.		

## 1.3 IMPORTANT SAFETY INSTRUCTIONS

In order to use the printer safely, the general notes which must be followed are explained.

Symbol	Meaning		
$\Diamond$	Indicates 'prohibited' operations.		
0	Indicates required operations.		



## ⚠ Important ⚠

Do not install the printer places where there is a possibility that the printer may be damaged or might fall by chance.

- On a shaky stand
- Slanting location
- Places where vibration of other machines etc. is transmitted

O not stand on the printer or do not place heavy things on top of it. The printer may be damaged or might fall by chance.

When not in use, cover the printer with a blanket and do not close the vent. If the vent is closed, the printer could accumulate heat inside and may cause fire.

Do not install the printer in places where the humidity is high and in a dusty environment. It could lead to electric shock and fire.

Do not use a damaged power cable. It could lead to an electric shock and fire.

Do not take out or insert the power plug with wet hands. This could lead to an electric shock.

Do not connect earth cables in the following areas:

- Gas pipes. Doing so may cause fire or an explosion.
- Earth terminals for telephone lines or lightning rods. Doing so may cause a large flow of voltage if lightning occurs.
- Water pipes or faucets. If there is a plastic part in the pipe, the grounding will not work correctly.
- O not store combustible materials on the print platform. It could lead to fire when raising the temperature.
- Do not insert or drop metal or objects which are easily combustible through the openings such as fresh air inlet into the printer. It could lead to an electric shock and fire.
- When foreign substances or liquids such as water entered the printer, do not use the printer. It could lead to an electric shock and fire. Immediately switch off the power, disconnect the power plug from the electric socket, and contact your local MUTOH dealer.
- While installing optional items, be sure to switch OFF the power of the printer and pull out the power plug. It could lead to an electric shock.
- Wire the various codes (cable) as explained in the User's Guide. Wrong wiring could cause fire.
- Be sure to use the power cable supplied with the printer. If other power cables are used, it could cause an electric shock or fire.
- Make sure to use only the specified power supply (AC 100 V 120 V or AC 220 V 240 V). If a power supply other than the specified voltage is used, it could cause an electric shock and fire.
- Take power for the printer directly from the power socket (AC 100 V 120 V or AC 220 V 240 V). Do not use complex multiple plugs on the same socket. This could generate heat and might cause fire.
- Be sure to use a dedicated power socket with earth wire for the power supply, and connect it to the earth wire. If the earth wire is not connected, an electric shock or fire may occur.
- The waste fluid from the printer should be considered as industrial waste. Proper waste fluid disposal according to industrial waste disposal laws of your local governments are required. Consign disposal of waste fluids to specialized processor.



## 

Pay attention to the following points, while handling the power cable.

- Do not place or keep heavy objects on the power cable.
- Do not bend, twist or pull the power cable by force.
- Do not route the power cable near heating appliances.

Pay attention to the following points while handling the power supply plug. Any mishandling of the power cable could cause a fire.

- Make sure that no foreign substances such as dust etc. are stuck to the power plug.
- Make sure that the power plug is firmly inserted to the edge of the power socket.

While handling the ink cassettes, pay attention so that the ink does not get into your eyes or stick to your skin. If the ink gets into your eyes or sticks to your skin, immediately wash off with water. It might possibly cause irritation and light inflammation of your eyes. In cases of any abnormality, consult a physician immediately.

Do not disassemble the ink cassettes. If disassembled, there is a possibility that the ink might come into contact with your eyes or skin.

Be careful to see that your fingers are not caught in-between opening and closing the media cover.

Do not operate the media set lever during printer initialization. If the carriage portion and the pressurizing roller portion touch each other, there is a possibility that the printer may break down.

O not touch the media guide during printing. It is hot and may cause burns.

O not touch the media feed slot, platen or media guide while heaters are operating. They are hot and may cause burns.

Do not use volatile solvents such as thinner, benzene, or alcohol on the printer. These could damage the paint.

Be careful that moisture does not enter the printer. There is a possibility that the electric circuits inside the printer might get short circuited.

O not open covers attached with screws under any circumstance. This could cause an electric shock or printer breakdown.

While cleaning with the wiper

Do not touch the wiper and head cap unit.
 Head cleaning may not be executed correctly because of the grease attached.

• Make sure to wipe the print head with a dry poly-knit wiper.

Do not make the main body of the printer slanting or place it in a vertical position or do not keep the printer upside down. There is a possibility that ink inside the printer may leak. Moreover, normal operation after shifting (to these positions) cannot be guaranteed.

Opening and moving the printer to the installation place should be done by :

VJ-1204: 2 or more persons

While taking out the printer from the container box, make sure to remove the vinyl sheet and hold the handles on the printer side. If the printer is lifted with the vinyl sheet attached, there is a possibility that it might fall and might be damaged.

Installation of the stand to the printer should be done by :

• VJ-1204: 2 or more persons

While installing the stand, be sure to switch OFF the printer power and to pull out the power plug. It could lead to an electric shock.

If the printer is not used for a longer period, make sure to pull out the power plug from the power socket for safety reasons.

Make sure to connect an earth wire to the earth connection which meets the following standards :

- Earth terminal of power socket
  - Earth wire with copper plate which is buried at a depth of 650 mm or more.

Set the roll media on an even surface such as a desk etc. If the roll media is set in such a way that the scroller is standing vertically, there is a possibility that the scroller might get damaged.

Keep the working area well-ventilated.

When printing is finished, the media guide is at high temperature. Wait until the media guide cools off.

Pay attention to the following points when you cut roll media. Mishandling the razor blade may cause an injury on your finger or hand.

- When you hold media, do not place your finger on the media cut groove.
- Move the razor blade along the media cut groove.

Be sure to switch OFF the power, and disconnect the power plug when cleaning the printer.

Move the printer maintaining it in a horizontal position.



## 1.4 WARNING LABELS

In this section, the handling, location and types of warning labels are explained.

A warning label is used on parts of the printer which especially need caution. Understand the locations and the descriptions of the danger associated with each label before operating the printer.

## 1.4.1 Handling the operation procedure labels

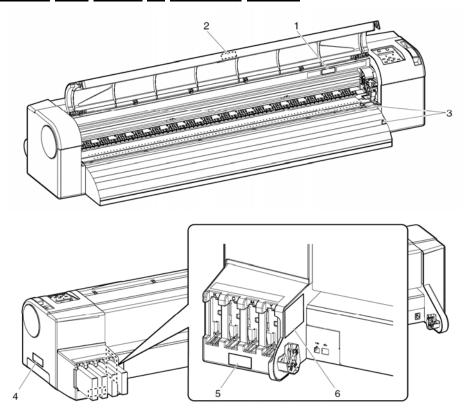
When handling the warning labels, be careful about the following points.

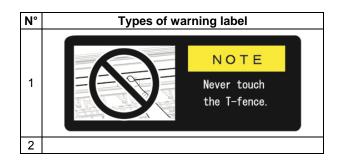
#### ⚠ Notes ⚠

- Check whether all warning labels can be read. If the letters or illustrations on the label are not clear, remove the dirt from the label.
- Use cloth, water and neutral detergent to remove dirt from a warning label. Avoid using either organic solvents or gasoline.
- It is necessary to replace the labels if they are damaged, lost or illegible.

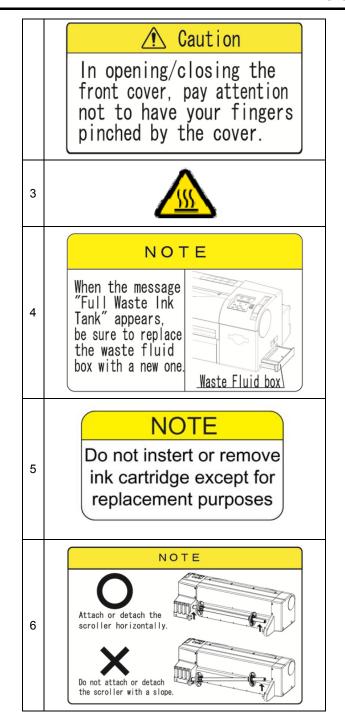
  If the warning labels have to be replaced, contact your local MUTOH dealer.

## 1.4.2 Locations and types of warning labels











## 1.5 OPERATION PROCEDURE LABELS

In this section, the handling, location and types of operation procedure labels are explained. Operation procedure labels contain items for which the operator should be particularly careful while operating the printer.

## 1.5.1 Handling the operation procedure labels

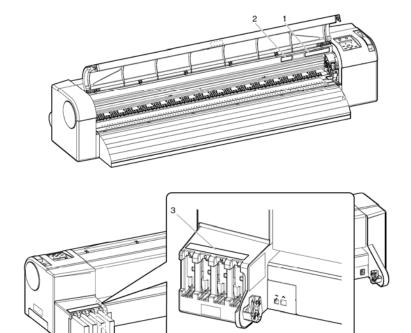
Be careful about the following points, when handling the operation procedure labels.

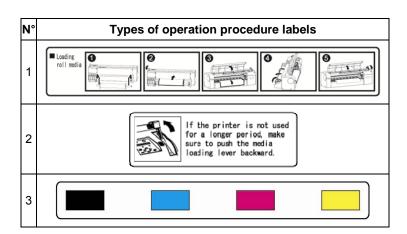
#### ⚠ Notes ⚠

- Check whether all operation procedure labels can be read. If the letters or illustrations on the labels are not clear, remove the dirt from the label.
- Use cloth, water and neutral detergent to remove dirt from an operation procedure label. Avoid using either organic solvents or gasoline.
- It is necessary to replace the labels if they are damaged, lost or illegible.

  If the operation procedure labels have to be replaced, contact your local MUTOH dealer.

## 1.5.2 Locations and types of warning labels









## **2 PRODUCT OVERVIEW**

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This chapter explains the features of the printer, and the names and functions of each part.

#### 2.1 FEATURES

In this section, the main features of the printer are explained.

#### (1) High-speed output

The ValueJet 1204 printer incorporates a new type high speed drop on demand piezo inkjet head. It offers printing widths up to 1219 mm at one-pass printing and 1200 mm at two-pass printing for VJ-1204.

#### (2) Wide variety of compatible media

The head is adjustable to two height levels and offers compatibility with maximum media thicknesses of 0.3 mm.

#### 3) Vibrant colour reproduction

ValueJet 1204 utilizes Mutoh's latest generation Eco-Solvent Ultra inks for indoor and outdoor applications. This printer uses 220 ml of eco solvent ink cassettes with a dedicated IC chip. The ink level inside of the ink cassettes is monitored by the printer for maximum productivity

#### (4) Multi-heater

Heaters are installed at three locations (pre-heater, fixer (platen), dryer) allowing the eco solvent ultra ink to optimally fix on the media and dry quickly.

#### (5) Effective use of media

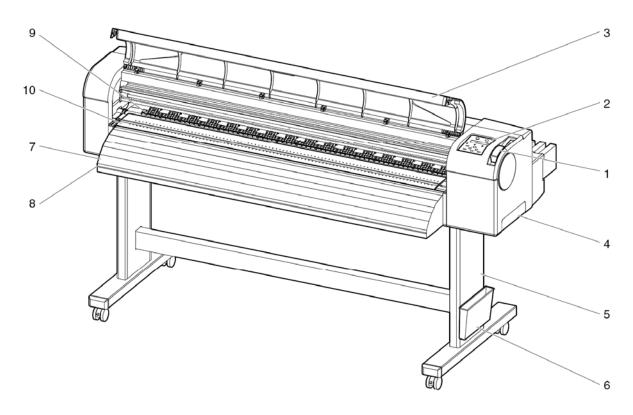
A JOG feature is provided to allow setting of the print starting position as required. Printing can be performed on media that has already been printed on. This allows effective use of left margins.



## 2.2 NAME OF THE PARTS AND FUNCTIONS

In this section, the names and functions of each part are explained.

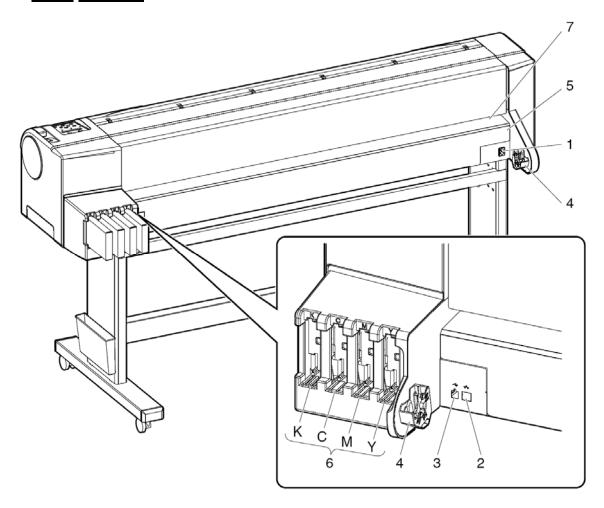
## 2.2.1 Front section



N°	Name	Function		
1	Media hold lever	To fix and release media.		
2	Operation panel	To make all printer related settings.		
3	Front cover	To protect the user from coming in contact with the driving mechanism.		
4	Waste fluid tank	To collect the printer's waste fluid.		
5	Stand	To install the printer on a levelled floor.		
6	Book holder	To store printer documentation.		
7	Media guide	To guide the media smoothly through the printer. The printer also has an incorporated heater to dry the ink.		
8	Media cut groove	To guide a knife when cutting off the media.		
9	Pressurizing lever	Press and hold the media when printing.		
10 Platen To guide the media smoothly through the printer. The printer also incorporated rest heaters to fix the ink.		To guide the media smoothly through the printer. The printer also has an incorporated rest heaters to fix the ink.		



## 2.2.2 Rear section



N°	Name	Function		
1	AC inlet	To connect the power cable.		
2	Network interface connector	To connect the network interface cable.		
3	USB connector	To connect the USB cable.		
4	Scroller receiver	To install the scroller with roll media.		
5	Media feed slot	To insert roll media.		
6	Ink cassette slots	To install the ink cassettes.		
7	Media guide	Used for smoothly feeding through media when the media is set or printed.  The ValueJet 1204 printer also incorporates a pre-heater element to warm up the installed media before printing.		



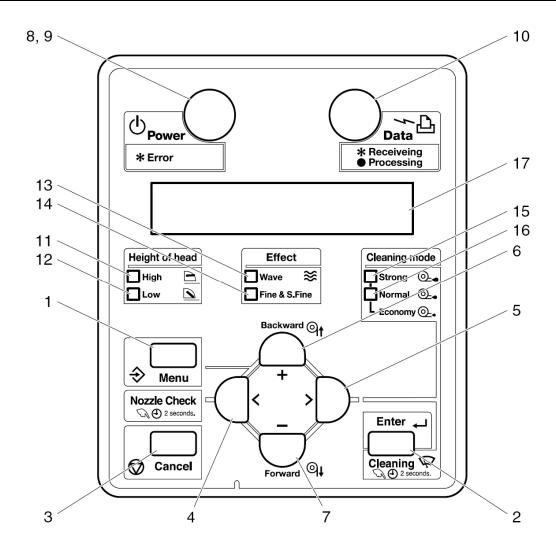
## 2.2.3 Operation panel

This section explains the name and the function of each operation key and status light.

#### **⚠** Notes **⚠**

Refer to the following for details regarding the operation method of the operation panel.

- When performing menu settings from the operation panel: Menu setup on the operation panel
- When performing various operations on the operation panel: Operating from the operation panel



The operation keys have 2 different functions, depending on the printer mode:

Mode	Key functions		
Normal mode	Various functions for printing can be performed on the operation panel.		
Menu mode	Various setup items (e.g. IP address, etc) can be set on the operation panel.		

For details on the printer mode, refer to "Printer mode".



#### (1) Operation keys in the Normal mode

N°	Key	Function		
1	[Menu]	Changes to Menu mode.		
2	[Enter]			
_	[Cleaning]	Cleans the printer head when pressed for two seconds or more.		
3	[Cancel]	During printing: Printing is terminated and the remaining data is deleted.  During receiving/analysis: All data received and analysed data is already deleted and the currently received data of the next print file is ignored. Ink dry timer wait: Ink dry timer wait is cancelled and the media is ejected.		
4	[<]			
4	[Nozzle Check]	Press and hold this key for two seconds or more to print a nozzle check		
5	[>]	Sets Cleaning Mode. The indication lights of Cleaning mode light up in green.		
6	[Backward feed↑]	Feeds the media in reverse direction.		
6	[Setting value +]			
7	[Forward feed↓]	Feeds the media in forward direction.		
′	[Setting value-]			
8	[Power]	Switches the printer ON / OFF.		

#### (2) Operation keys in the Menu mode.

N°	Key	Function		
1	[Menu]	Shifts from Menu mode to Normal mode.		
2	[Enter]	Selects a specific menu or submenu. The value is entered and saved.		
	[Cleaning]	-		
3	[Cancel]	Returns to the previous level in the menus structure. Changes in the setup value will not be saved.  Shifts from the Menu mode to Normal mode.		
4	[Back]	Goes to the previous menu.		
5	[Next]	Goes to the next menu.		
6	[Backward feed↑]			
0	[Setting value +]	The numerical value is increased.		
7	[Forward feed↓]			
7	[Setting value-]	The numerical value is decreased.		
8	[Power]	Switches the printer ON / OFF.		

- For details on how to work with the operation panel, refer to the following topics :
  - When working in the Menu mode. Refer to: "Menu setup on the operation panel".
  - o When working in the Normal mode. Refer to: "Operating from the operation panel".



## (3) Status lights

N°	Light	Colour	Status	Description
	Power	Green	Light ON	Power ON.
9			Light blinks	An error has occurred. The error message is displayed on the LCD.
			Light OFF	Power OFF.
	Data	Orange	Light ON	Analyzing received data. Printing.
10			Light blinks	Receiving data.
			Light OFF	Data is not received / analyzed.
44	High	Green	Light ON	Height of head is set to High
11			Light OFF	Height of head is set to Low
40	Low	Green	Light ON	Height of head is set to Low
12			Light OFF	Height of head is set to High
13	Wave	Green	Light ON	Printing effect is set to Wave.
13			Light OFF	Printing effect is set to Fine & Super Fine.
14	Fine & Super Fine	Green	Light ON	Printing effect is set to Fine & Super Fine.
14			Light OFF	Printing effect is set to Wave.
15	Strong	Green	Light ON	Cleaning mode is set to Strong
13	Ottorig	Green	Light OFF	Cleaning mode is set to Normal
16	Normal	Green	Light ON	Cleaning mode is set to Normal
			Light OFF	Cleaning mode is set to Strong
17	LCD display section			Operation status of the printer or error message is displayed.

- When an error requiring a restart (fatal malfunction of the printer operation) occurs, all lights will blink.
- Contact your local MUTOH dealer if the malfunction cannot be solved.
- For more information please refer to: "Error requiring a restart".



## 2.3 PRINTER MODE

This section explains the printer modes of the printer and how to change them.

#### 2.3.1 Normal mode

The printer is ready to print.

- The media is loaded and the media type is set.
- Various functions for printing can be performed on the operation panel.
- The message 'Ready to print' is shown.

## 2.3.2 Menu mode

In this mode, various setup items (IP address, etc...) can be set on the operation panel.

⚠ Notes ⚠

• Essential settings for normal printing can be modified / set on the printer driver or the graphics application software, or via the operation panel.

## 2.3.3 Changing the printer mode

(1) Changing from Normal mode to Menu mode.

Action: Press the [Menu] key.

**Result:** The display is in 'Menu' mode', from now on called the 'Setup Menu display'.

The following message is shown: "Menu 1: Setup>".

(2) Changing from Menu mode to Normal mode

**Action:** Press the [Cancel] key.

**Result:** The printer returns to the Normal mode.

∧ Notes ∧

 When the printer is in Menu mode and the keyboard remains untouched for 3 minutes, the printer automatically returns to Normal mode.

- For details on Status messages, refer to Status messages.
- For details on the Setup menu, refer to Menu setup on the operation panel.



## **3 INSTALLING THE UNIT**

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## 3.1 INTRODUCTION

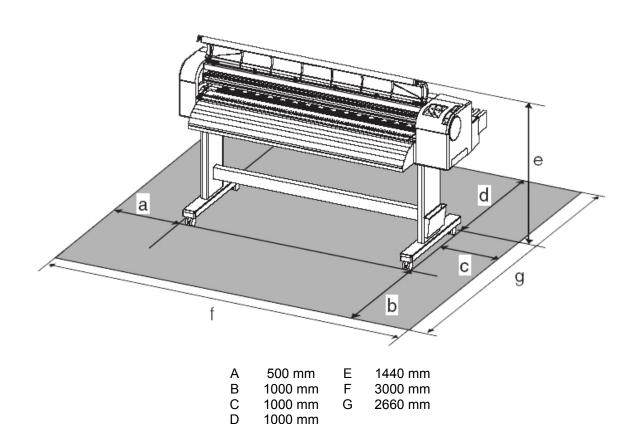
This section explains how to fully install the assembled printer. For further information on how to assemble your ValueJet printer, please refer to the Installation Guide.

## 3.2 INSTALLATION SPACE

Install on a level floor which meets the following conditions. It has enough strength to support the weight of the printer and the stand

⚠ Notes ⚠

For the weight of the printer and the stand, refer to the Operation Manual.





## 3.3 INSTALLATION PROCEDURE

## Installation procedure when using the network connection

Starting point: ASSEMBLED VALUEJET

 $\downarrow$ 

Step	Action	Reference
1	Connect the power cable.	Power Cable Connection
2	Install the ink cassettes.	Installing ink cassettes for the first time
3	Connect the printer to the PC.	Connecting network interface cable

 $\downarrow$ 

**Result: FULLY- INSTALLED VALUEJET** 



## 3.4 POWER CABLE CONNECTION

## 3.4.1 Important notes and cautions

#### 

- Make sure to use the power cable supplied with the printer. Use of a different cable may result
  in an electric shock or fire.
- Do not use a damaged power cable. Doing so may result in an electric shock or fire.
- The printer's disconnect device is the plug on the power cable.

#### 

- Do not attempt to plug in electrical plugs with wet hands. Doing so may result in an electric shock.
- Be sure to use the specified voltage (AC 100V-120V/220V-240V). Otherwise, an electric shock or fire may occur.
- Use electricity directly from a power outlet (AC 100V-120V/220V-240V). Do not put many loads on one electrical outlet. Otherwise, heat may be generated, causing fire.
- Be sure to use an outlet with an earth terminal, and to use the terminal correctly. Otherwise, electric shock or fire may occur.
- Do not connect earth cables to :
  - o Gas pipes. Doing so may cause fire or an explosion.
  - Earth terminals for telephone lines or lightning rods. Doing so may cause a large flow of voltage if lightning occurs.
  - Water pipes or faucets. If there is a plastic part in the pipe, the grounding will not work correctly.

#### 

- Follow the instructions below when handling the power plug. Otherwise, fire may occur.
  - Wipe away dust and any other residue before inserting the plug.
  - Ensure that the plug is firmly inserted as far as it will go.
- When not using the printer for a long time, disconnect the plug from the power socket.
- Earth wires must be connected to wires or terminals that fulfil the following conditions:
  - o Power sockets with earth terminals.
  - o Earth wires with copper, at least 650 mm under the ground.

#### 

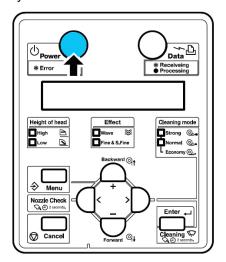
- Be careful when handling the power cable:
  - Do not make any modifications to the power cable.
  - o Do not place anything heavy on the power cable.
  - Do not bend, twist, or pull the cable.
  - Do not wire the cable near equipment that generates heat.

- When the printer is ON, do not pull out the power cable from the socket. Whenever the plug is
  pulled out from the power socket, allow one minute or more before inserting the plug in the
  power socket again.
- Contact your local Mutoh technician, when the earth connection cannot be established, or when the earth connection is not given.



## 3.4.2 Connection procedure

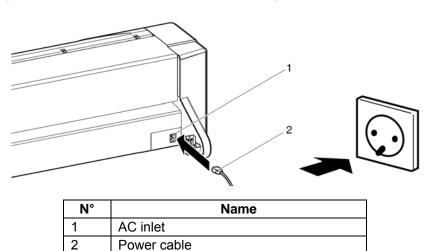
**Step 1:** Make sure that the power key is switched OFF.



#### **⚠** Notes **⚠**

• The power is switched ON when pressing the [Power] key. In that case, press the key once again to switch OFF the power.

**Step 2:** Plug the power cable to the AC inlet at the back of the printer.



#### ⚠ Notes ⚠

If the power cable is damaged, contact your local MUTOH dealer.

- If you cannot use earth terminals nor find any of them, contact your local Mutoh distributor.
- Do not unplug the power cable when the printer is on. If the power cable has been unplugged, leave the printer for at least 1 minute before plugging the cable in again.

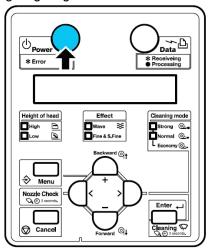


## 3.5 SWITCHING THE POWER ON / OFF

## 3.5.1 Switching the power ON

**Step 1:** Press the [Power] key to switch ON the printer.

• The Power indication light lights green.



- The printer starts initializing.
- When the initialization is completed, the printer enters its normal status.

#### **⚠ Notes ⚠**

 If there is a problem during initial operation, the printer displays a message and may stop operating.

In case operation stops, refer to "Troubleshooting" and deal with the problem.



## 3.5.2 Switching the power OFF

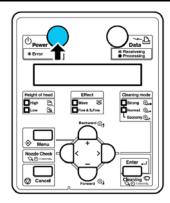
**Step 1:** Before powering off, be sure that:

- Printing or other operations are stopped or finished.
- The printer (and operation panel) is in normal mode.
- The head height adjustment lever is lowered.

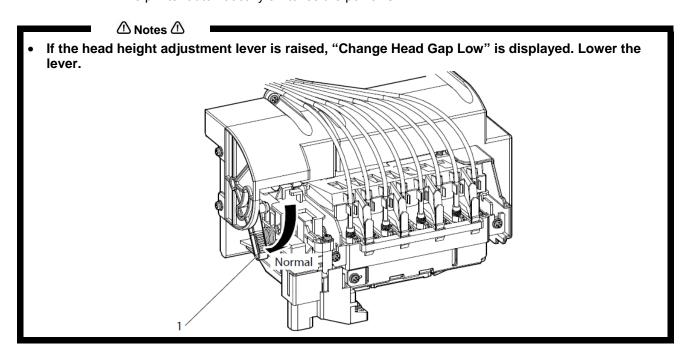
**Step 2:** Press the [Power] key to switch OFF the printer.

• The Power indicating switches off.

- If the operation panel is in the following status, the power is ON. Press the key once again to switch off the power.
  - o The [Power] key is pressed in.
  - o The [Power] indication light lights up in green.



- "Power Off" is displayed.
- The printer automatically switches the power OFF.

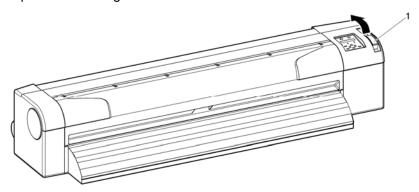


- All the lamps on the operation panel and the LCD monitor are switched OFF.
- The printer automatically switches the power OFF.



- If there is a problem during the Power off sequence, the printer displays a message and may stop operating.
  - In case operation stops, refer to "Troubleshooting" and deal with the problem.
- After switching OFF the printer, wait for 10 seconds or longer to switch it ON again.

**Step 3 :** Raise the media hold lever after the powering OFF cycle. This in order not to damage the media due to the pressure of the grid rollers.



N°	Name	
1	Media hold lever	



## 3.6 INSTALLING INK CASSETTES FOR THE FIRST TIME

#### 

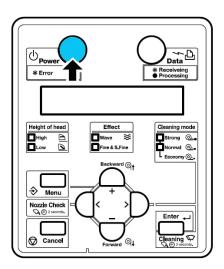
- When handling ink cassettes, be careful not to get ink into your eyes or on your skin. However, if this happens, flush immediately with water. Otherwise, your eyes may become inflamed slightly. If you feel discomfort, consult a doctor immediately.
- Do not disassemble ink cassettes. Otherwise, ink may get into your eyes or on your skin.
- Do not shake ink cassettes. Doing so may cause ink leakage.

#### 

- When filling ink in the machine, use Mutoh original Eco-Solvent Ultra inks only.
   This printer has been fine tuned for use of genuine ink cassettes. In case of using non original ink cassettes. Printing might become blurred and the end of ink in the cassette might no longer be correctly detected.
  - The problems caused by doing so will not be covered by the warranty and repair expenses will be paid by the customer.
- Do not shake the ink cassettes strongly to avoid ink leaking out of the cassette.
- Do not disassemble the ink cassette. A disassembled ink cassette cannot be used.
- Make sure to use an original cleaning fluid.
- . Before installing the ink cassette, shake it gently. Doing so will preserve printing quality.
- When storing the ink cassettes in a cold room, be sure to take them out of stock at least 3 hours before using them.
- Insert or remove the ink cassette not more than 10 times.
   If inserting or removing the ink cassette 10 times or more, it cannot be used even if there is some remaining ink inside.
- Each ink cassette has a dedicating smart chip recognising ink types, colour and ink level inside of the cassette. Taking out a cassette from its cassette slot during printing might result in damaging the smart chip, causing the cassette to become obsolete.

#### **Step 1:** Switch ON the printer.

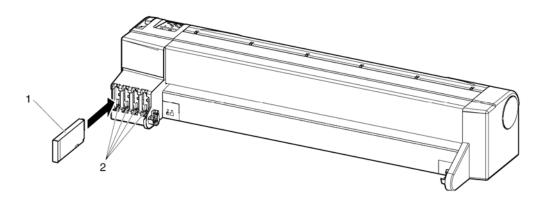
- The printer starts initialization.
- The operation panel displays "[KCMY] Discharged".



After the initial operation is complete, "Insert CleaningCart." is displayed.

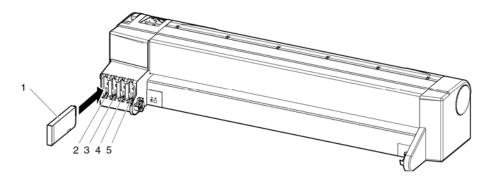


- **Step 2:** Take out the cleaning cassette from the solvent resistant blister.
- **Step 3:** Install the cleaning cassette into the ink cassette slot.
  - Keep the ▲ mark of the cleaning cassette facing up and insert it into the slot of the printer.
  - Insert the cleaning cassette to the end of the slot.



N°	Name	
1	Cleaning cassette	
2	Ink cassette slot	

- The printer starts filling cleaning fluid.
- **Step 4:** After cleaning fluid has been filled, take out the cleaning cassette.
  - "During washing" is displayed and the printer starts head cleaning
  - "Insert Ink cassettes" is displayed after the head cleaning.
- **Step 5 :** Take out the ink cassette from the solvent resistant blister and shake it gently 2-3 times.
  - The slots for the ink cassettes are specified depending on the colours of ink cassettes. Match
    the colour marked by the side of each slot with the colour of the ink cassette.
  - Keep the ▲ mark of the ink cassette facing up and insert it into the slot of the printer.
  - Insert the ink cassettes in the printer as follows:
  - The ink cassettes must be inserted in a specific slot according to the type and colour used.
  - Insert the cassettes with the arrow mark "▲" face-up and pointing to the rear of the printer.
  - Insert the cassettes as far as possible.
  - · Install all four colours.



N°	Name	
1	Ink cassette	
2	Ink cassette slot K	
3	Ink cassette slot C	
4	Ink cassette slot M	
5	Ink cassette slot Y	



#### ∧ Notes ∧

 The ValueJet ink cassettes are developed in such a way that miss-insertion is not possible. For each colour, a different design is used, i.e., fins are placed at the outside of each cassette, at different locations, depending on the ink colour used.

**Result:** The operation panel displays "Ink Refill \*\*%", and the initial ink replenishment starts.

- The ink replenishment takes about five minutes. Initial ink replenishment and pause operation are repeated during initial filling.
- After the ink replenishment is completed, when "100%" is displayed, the operation panel displays "Paper End".

#### ⚠ Notes ⚠

- During ink filling:
  - o Do NOT switch off the printer.
  - Do not pull out the printer power cable.
  - Do not open the front cover.
  - o Do not push the media hold lever to the back side.

#### ⚠ Notes ⚠

- After an initial ink fill, the following can occur:
  - o Printed lines become blurred.
  - White lines appear in the prints.
- If this is the case, perform two or three head cleanings, and check the results.
- If the quality of the printed image did not improve after performing the head cleanings, leave the printer idle for more than one hour. After that, perform another head cleaning and check the printed image. If the quality still did not improve, contact your local MUTOH dealer.

- Only use Mutoh original ink for ValueJet printers.
   This printer is fine tuned for genuine ink cassettes. In case of using non genuine ink cassettes, notice the following:
  - Printing might become blurred and the end of ink in the cassette might no longer be correctly detected.
  - The problems caused by the use of non original ink cassettes will not be covered by the warranty and repair costs will be at the expense of the customer.
- When ink cassettes are moved from a cold place to a warm place, keep the ink cassettes unused for three hours or more in the printing environment.



## 3.6.1 Replacing ink cassettes

This section describes the replacement time and replacement method for the ink cassettes.

#### (1) Replacement time

- A. When "[\*\*\*\*] InkNearEnd" is displayed on the operation panel
  - This message is displayed when there is a small amount of ink remaining in the ink cassette.
  - When "[\*\*\*\*] InkNearEnd" is displayed, the alarm buzzer sounds continuously.
  - To stop the buzzer, press the [Enter] key.
  - Replace with the new ink cassette.
- B. When "[\*\*\*\*] InkEnd" is displayed on the operation panel
  - This message is displayed when there is no ink remaining in the ink cassette.
  - When "[\*\*\*\*] InkEnd" is displayed, the alarm buzzer sounds continuously.
  - To stop the buzzer, press the [Enter] key.
  - Immediately replace it with the new ink cassette.

#### ⚠ Notes ⚠

- The display indicates which ink colour became low or ran out :
  - o K: Black
  - o C: Cyan
  - o M: Magenta
  - O Y: Yellow
- Only remove and insert ink cassettes at the time of replacement. Not doing so may result in incorrect printing behaviour due to failures such as nozzle loss, or air which might come in the ink tubes.
- If "Ink End" appears, it is not possible to print until you insert the new ink cassette.
- If there is no new ink cassette available, leave the empty ink cassette in the printer. Leaving the printer without ink cassettes inside the ink cassette slots may result in head clogging.

#### (2) Cassette Types

Description	Model N°
Ink cassette K (Black: 220ml)	RJ80U-22-BK
Ink cassette C (Cyan: 220ml)	RJ80U-22-CY
Ink cassette M (Magenta: 220ml)	RJ80U-22-MA
Ink cassette Y (Yellow: 220ml)	RJ80U-22-YE

#### ⚠ Notes ⚠

Only use Mutoh original ink.

This printer is developed for use of genuine ink cassettes. In case of using non genuine ink cassettes, :

- printing might become blurred and the end of ink in the cassette might no longer be correctly detected.
- the problems caused by doing so will not be covered by the warranty and repair expenses will have to be paid by the customer.
- When the ink cassette is moved from a cold place to a warm place, keep the ink cassette unused for three hours or more in the printing environment.



#### (3) Replacement steps

### **△** Caution **△**

- When handling ink cassettes, be careful not to get ink into your eyes or on your skin. However, if this happens, flush immediately with water. Otherwise, your eyes may become inflamed slightly. If you feel discomfort, consult a doctor immediately.
- Do not disassemble ink cassettes. Otherwise, ink may get into your eyes or on your skin.

#### ⚠ Notes ⚠

- Do not shake ink cassettes. Doing so may cause ink leakage.
- Do not disassemble the ink cassette. A disassembled ink cassette cannot be used.
- When an ink cassette is moved from a cold place to a warm place, keep the ink cassette unused for three hours or more in the printing environment.
- Do not refill the ink cassettes, doing so may result in incorrect printing.
- Insert or remove the ink cassette at the time of replacement only.

**Step 1 :** Verify that the printer is ON.

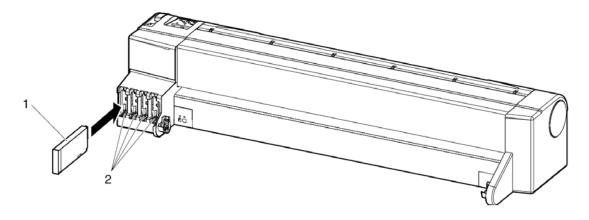
#### ⚠ Notes ⚠

 Do not replace ink cassettes when the printer is switched OFF. Doing so may result in incorrect detection of the remaining ink and result in abnormal printing behaviour.

Step 2: Remove the empty ink cassette(s) from the ink cassette slot (s).

#### **⚠** Notes **⚠**

 A used ink cassette must be put in a vinyl bag or a bag used for this kind of waste. Disposal of an ink cassette must be done in compliance with the regulations and instructions of the local authorities.



N°	Part Description
1	Ink cassette
2	Ink cassette slot



**Step 3:** Unpack the new ink cassette(s).

### ⚠ Notes ⚠

- Open the solvent resistant cassette blister just before inserting the ink cassette into the cassette slot. Leaving the ink cassette open for a long time may result in an abnormal printing.
- Use the ink cassettes within 2 years from the date printed on the package. Using an ink cassette after this period may affect the print quality.
- Replace the ink cassette within 6 months after installing it into the printer.
- Insert or remove the ink cassette not more than 10 times. This to prevent that the smart chip or
  its reader would be worn out and malfunction in this way. If inserting / removing more than 10
  times the ink cassette could malfunction even if there is some ink remaining.

**Step 4:** Insert the new ink cassette(s)

**Step 5:** Verify that the printer returns to Normal mode

⚠ Notes ⚠

• The printer resumes printing when replacing ink cassettes.



# 3.7 CONNECTING THE PRINTER TO THE PC

# 3.7.1 System requirements

For details about the system requirements, please refer to the documentation of the RIP software of your choice.

# 3.7.2 Selecting cables

The printer is equipped with a network interface and a USB interface to connect it with a PC. A network interface cable or an USB cable is required to connect the PC with the printer.

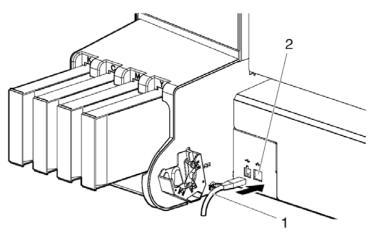
#### ⚠ Notes ⚠

- To connect the printer via a network interface cable, refer to "Connecting network interface cable".
- The USB connection is reserved for service technicians only.

# 3.7.3 Connecting network interface cable

**Step 1:** Switch OFF both the printer and the PC.

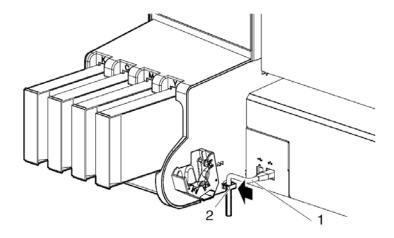
**Step 2 :** Plug the network interface cable into the network interface connector located at the back of the printer.



N°	Name
1	Network interface cable
2	Network interface connector



**Step 3:** Secure the network interface cable with the cable clip.



N°	Name
1	Network interface cable
2	Cable clip

**Step 4:** Plug the other end of the network interface cable into your PC.

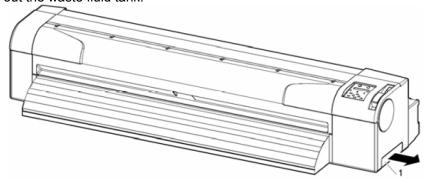
- Refer to the PC documentation for information concerning connection possibilities.
- For network settings on the side of the printer, refer to "Panel setup menu overview"
- The USB connection is reserved for service technicians only.



## 3.8 TRANSFER AND TRANSPORTATION

### 

- Transfer the printer maintaining the horizontal position.
- Do not place the printer on a slope or vertical position, nor keep the printer upside down. This
  to avoid ink leaks inside the printer. Moreover, normal operation after shifting to these
  positions cannot be guaranteed.
- **Step 1** Verify that the printer is powered ON.
- Step 2 Pull out the waste fluid tank.

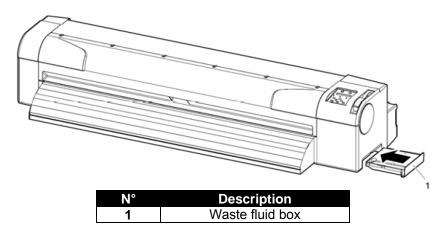


N°	Description
1	Waste fluid box

Result: the operation panel displays "No Waste fluid box".

- A used waste fluid tank must be put in a vinyl bag or a bag used for this kind of waste.
- Disposal of a waste fluid tank must be done according to your local laws and regulations.

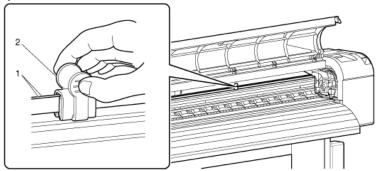
Step 3 Install a new waste fluid tank.



- **Step 4** Verify that the operation panel displays "Exchange Tank? No".
- **Step 5** Select "Exchange Tank? Yes" and press the [Enter] key.
- Step 6 Remove all ink cassettes
- **Step 7** Switch OFF the printer.
  - The operation panel displays "Transport Mode", and the printer starts the ink rejecting operation. This takes approximately 2 minutes.

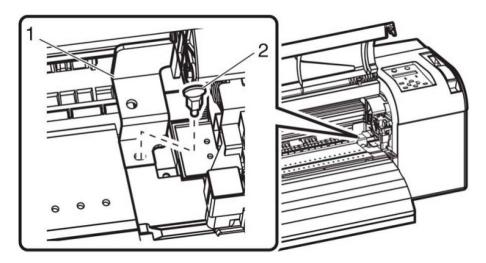


- **Step 8** Verify that the power light faints when the ink rejection operation is finished.
- **Step 9** Dispose the waste fluid.
- **Step 10** Remove the scroller.
- Step 11 Remove all cables.
- Step 12 Open the front cover and fix the CR belt in the centre section of the printer by fastening the CR belt clip around.



N°	Description		
1	CR belt		
2	CR belt clip		

**Step 13** Place the metal plate and fix it with the butterfly screw. The head is now fixed.



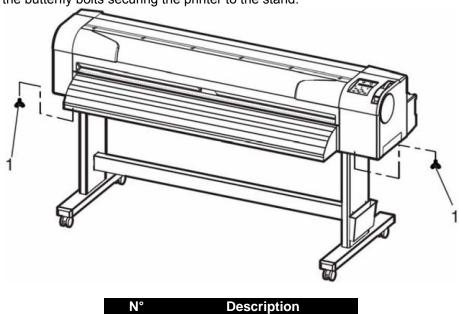
N°	Description
1	Metal plate
2	Butterfly screw

42



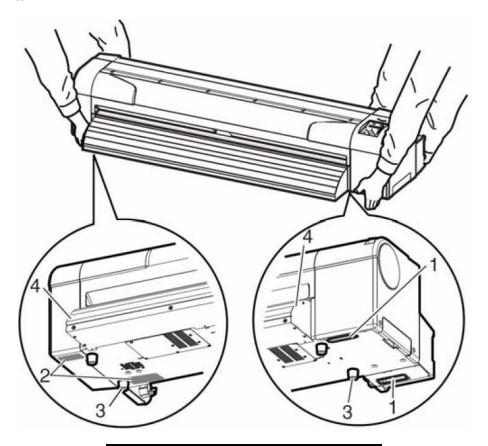
# 3.8.1 PACK THE MACHINE

**Step 1** Loosen the butterfly bolts securing the printer to the stand.



**Step 2** Lift the printer main body with the hand grips; be careful not to break off the rubber feet underneath the printer.

Butterfly bolts

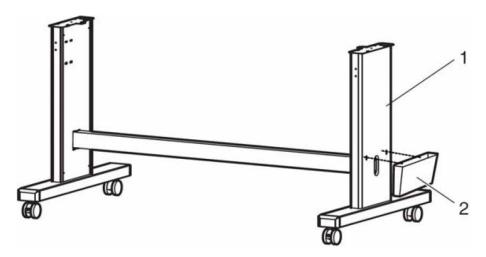


N°	Description		
1	Hand grips		
2	Rubber grips		
3	Rubber feet		
4	Media guide		



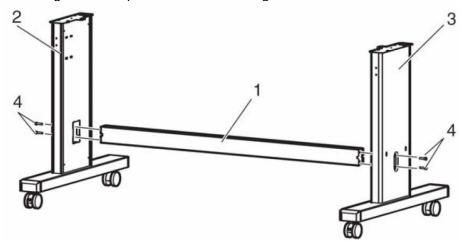
Step 3 Unlock the two casters at the front side of the stand.

**Step 4** Remove the book holder at the right side of the stand.



N°	Description	
1	Leg (right)	
2	Book holder	

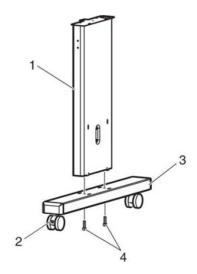
**Step 5** Loosen the hexagon head cap screws with the hexagonal wrench and demount the central beam.



N°	Description
1	Central beam
2	Left leg
3	Right leg
4	Hexagon head cap screws



**Step 6** Loosen the 2 hexagon head cap screws to detach the right support from the caster section.



N°	Description		
1	Right support		
2	Caster lock		
3	Caster section		
4	Hexagon head cap screws		

**Step 7** Detach the left leg from the stand in the same way as the previous step.

**Step 8** Now that every component is detached, repack everything in the original packing box before transporting the machine.

# 3.9 STEPS AFTER TRANSFER

**Step 1 :** Choose a suitable place for installation and place the printer. See "**Installation guide**"

**Step 2 :** Verify that the butterfly bolts fixing the stand with the printer are tight.

Step 3: Connect all cables.

**Step 4 :** Perform a nozzle check, and verify that there is no clogging in the printer head.

See "Nozzle check"

**Step 5 :** Perform a head alignment.

See "Adjust print"



# **4 HANDLING THE PRINTER**

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# 4.1 INTRODUCTION

This section describes how to make the fully-installed printer "ready-to-print". For details on how to obtain a fully installed printer, see chapter "**Installing the unit**"

# **4.2 MAKING THE PRINTER READY-TO-PRINT**

Starting point: FULLY-INSTALLED VALUEJET

Step	Action	Reference
1	Choose the appropriate media.	General info on usable media
2	Install and load the media.	Installing roll media Loading roll media
3	Set the media type	Setting media type
4	OPTIONAL : Adjust the head height	Head Height Adjustment
5	Set the printing conditions.	Menu setup on the operation panel
6	OPTIONAL: Perform (a) test plot(s) and perform adjusting, cleaning and replacing actions when needed.	Test Print

**Result: READY-TO-PRINT VALUEJET** 



## 4.3 USING MEDIA

# 4.3.1 <u>Media type</u>

The type and quality of the media affects the result of drawing enormously. Refer to the description below and use the appropriate media for your purpose.

The following are the recommended media for the printer. Select the appropriate media for your purpose.

#### ⚠ Notes ⚠

- For more information about the recommended media, contact your local MUTOH dealer.
- Problems that occur due to use of media other than those recommended are not guaranteed.

#### ⚠ Notes ⚠

- When using recommended media, the setting values for the printing quality is set for each media type.
- When printing on media other than those specified, information regarding proper should be found on the instructions for the media. If not contact the supplier of the media.

# 4.3.2 Cautions on handling media

When you handle media, please pay attention to the following.

#### ∧ Notes ∧

• Use recommended media in an appropriate environment. Following are the appropriate temperature and humidity ranges for printing.

	Temperature	Humidity
Recommended working environment	23°C	40% to 70%
Rate of change	Within 2°C per hour	Within 5% per hour

- Do not use creased, damaged, torn, curled, or wrapped media.
- The size of the recommended sheets can change at a fixed ratio according to the temperature changes of the working environment. Before using sheet media, place the sheet in the working environment for at least 30 minutes, to have it match to the temperature of the working area.
- Printing before the media could accommodate to the printing environment may cause media jams due to slippage or creases. This also adversely affects the quality of printing.
- Media has a printable side and a non-printable side. If you print on a not printable side, blurring or slight touching may occur.
- Do not touch the printable side of media. Moisture or oil from hands affects the printing quality.
- Do not leave the printer for a long time with media loaded. The media may curl resulting in misalignment, media jams, or decreased printing quality. In particular, avoid this in winter, dry seasons, or during final printing.
- Do not lose the box or wrapping bag for storing media.



# 4.3.3 Precaution on storing media

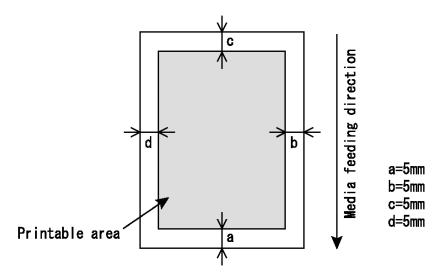
When storing media, pay attention to the following.

#### ⚠ Notes ⚠

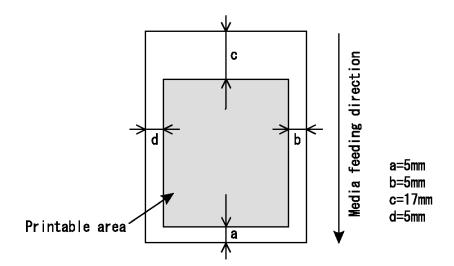
- Do not store media in high temperature, high humidity, or direct sunlight.
- · Store sheet media in the original bag after unpacking.
- Unused roll media must be removed from the scroller, rewound tightly, and stored in the original wrapping bag and the box.
- Do not wet media.

# 4.3.4 The printing area

# 4.3.4.1 <u>Roll media</u>



### 4.3.4.2 Sheet media





## 4.4 HANDLING AND INSTALLING MEDIA

#### ⚠ Notes ⚠

- Refer to "General info on usable media" for details on media handling.
- It is recommended to use tested and compatible media for this printer.

# 4.4.1 Installing roll media

### **⚠ Notes ⚠**

- Only use the scroller supplied with this printer.
- For media with a three inch core, three-inch core adapters must be used.

#### ∧ Notes ∧

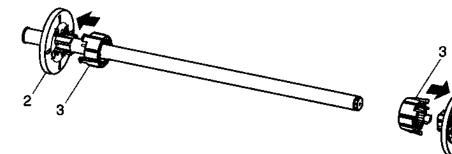
- It is possible to load the following roll media on the printer's scroller:
  - two inches diameter media core (outer diameter less than 150 mm, weight 19kg or less)
  - three inches diameter media core (outer diameter less than 150 mm, weight 19kg or less)
- For details, refer to: "Product specifications".

#### 

- Set the roll media on a flat and levelled surface.
- If the roll media and scroller are placed in a vertical position, the scroller might get damaged.

#### 

- If you use an optional Take-Up system, please refer to the user guide of the ValueJet 1204 Take-Up system.
- Step 1: Remove the movable flange from the scroller.
- Install the optional three-inch core adapters : Step 2:
  - If using media on a 2 inch core: Don't use the three-inch core adapters, go to step 3.
  - If using media on a 3 inch core: Click a three-inch core adapter on the fixed flange and the movable flange.

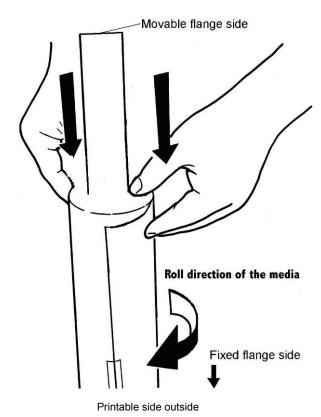


N°	Name
1	Movable flange
2	Fixed flange
3	Three-inch core adapter

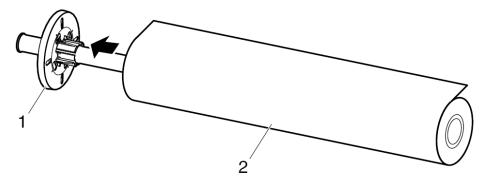
52



**Step 3:** Put the roll media on the scroller.



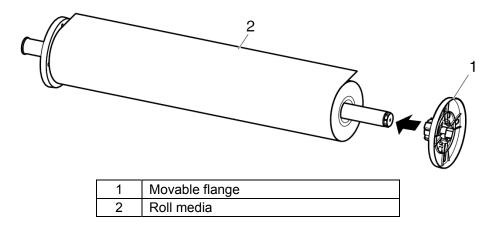
**Step 4 :** Push the roll media on the scroller and slide it over the fixed flange.



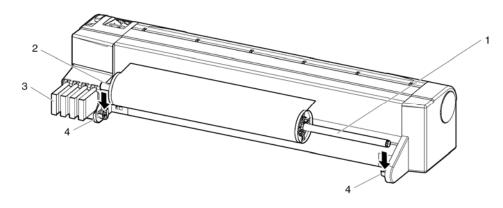
N°	Name
1	Fixed flange
2	Roll media



**Step 5**: Move the movable flange over the scroller and firmly press the flange inside the roll media core.



**Step 6 :** Put the scroller on the printer's scroller receiver so that the fixed flange is facing the ink cassette slot side.

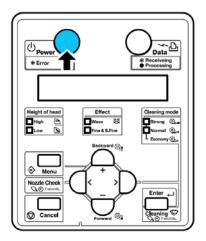


N°	Name
1	Scroller
2	Fixed flange
3	Ink cassette slot
4	Scroller receiver



# 4.4.2 Loading roll media

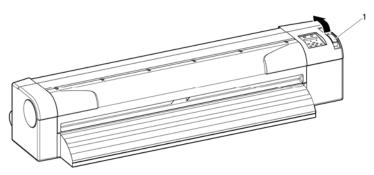
**Step 1:** Power ON the printer.



### **△** Caution **△**

Do not use the media hold lever during printer initialization. If the carriage and the pressure rollers touch each other, the printer might break down.

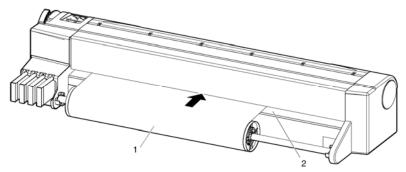
**Step 2:** Push the media hold lever backward.



N°	Name
1	Media hold lever

Result: The operation panel displays "Lever Up".

**Step 3:** Slide the roll media into the media feed slot.

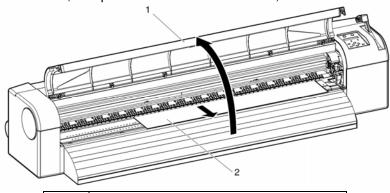


N°	Name
1	Roll media
2	Media feed slot



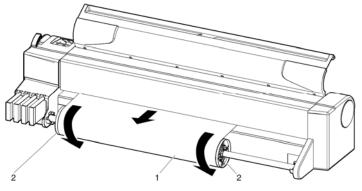
- Make sure the roll media is properly wound up on the media core.
- If the front edge of the roll media is not straight, cut it straight on beforehand.
- If the front edge of the roll media is curled, cut it off on beforehand.
- For the cutting method, refer to topic "Cutting media".

**Step 4:** Open the front cover, and pull out the roll media about 0,5 m.



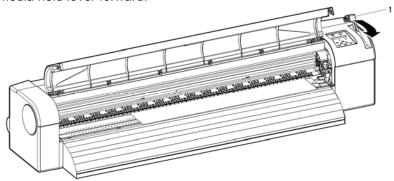
N°	Name
1	Front cover
2	Roll media

**Step 5 :** Wind back the roll media with the scroller while pressing down the media at the front side of the printer. This will reduce bending and avoid slant of the media.



N°	Name
1	Roll media
2	Scroller

**Step 6:** Pull the media hold lever forward.



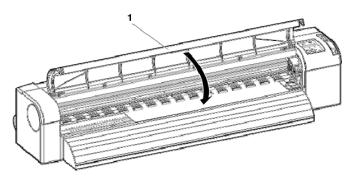
N°	Name
1	Media hold lever



### ⚠ Notes ⚠

• If the front edge of the roll media is not straight, cut it straight.

**Step 7:** Close the front cover.



N°	Name
1	Front cover

Result: The operation panel displays the Media setup menu.

### ⚠ Notes ⚠

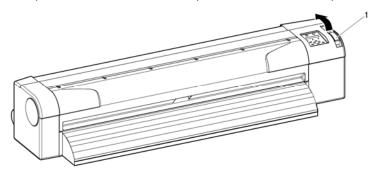
To change the media type, set the media type as described in "Setting media type"



# 4.4.3 Setting media type

#### Introduction:

When loading the media in a ValueJet, you'll have to set the media type. The Media setup menu is displayed after the media hold lever is pushed from the backward position to the forward position. (= lever down)



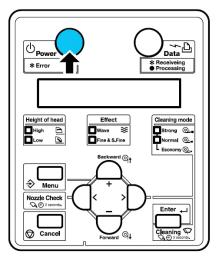
N°	Name
1	Media hold lever

### ∧ Notes ∧

- The printer starts the media initialization without setting the media type when
  - The [Cancel] key is pressed.
  - No key operations are performed on the operation panel for 10 seconds.

#### **Procedure:**

**Step 1:** Verify that the printer is switched ON and media is loaded.

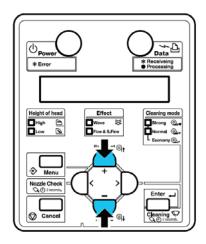


Result: After the media is loaded, the display shifts to the Media setup menu.

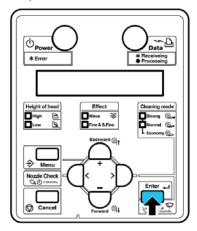
- Refer to the following topics for media loading:
  - Installing roll media
  - o Loading roll media



**Step 2:** Press the [Setting value +] key or [Setting value-] to select the correct media type.



Step 3: Press the [Enter] key to confirm your choice.

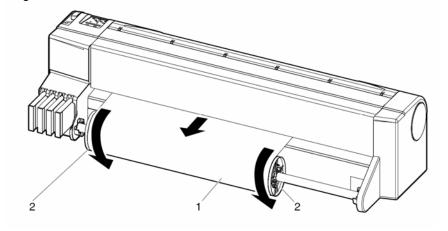


#### Result:

- The media type is determined
- The operation panel displays "Paper Initial", and media initialisation starts.

**Step 4:** After media initialization, the operation panel displays "Ready to Print".

**Step 5:** When using the roll media, wind back the roll media to avoid slackness at the back.



N°	Name
1	Roll media
2	Scroller



# 4.4.4 Head height adjustment

#### When used?

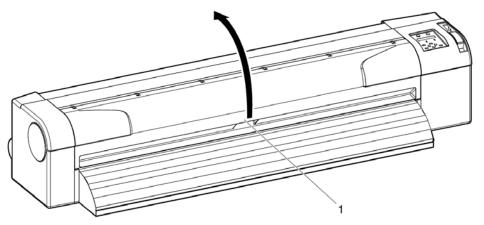
Use the head height adjustment feature to prevent the print head from touching the media, when printing at high speeds or when using strongly curved media.

#### ⚠ Notes ⚠

- If the head height adjustment lever is raised, high print quality will not be guaranteed.
- Do not open the front cover nor change the head height during printing. If the head height is changed, the head alignment will be changed and high print quality will not be guaranteed.
- To perform a head alignment, refer to "Head height alignment"

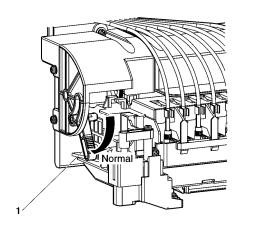
#### Procedure:

**Step 1:** Open the front cover.

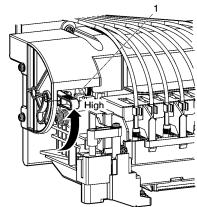


N°	Name
1	Front cover

**Step 2 :** Move the head height adjustment lever to change the head height.







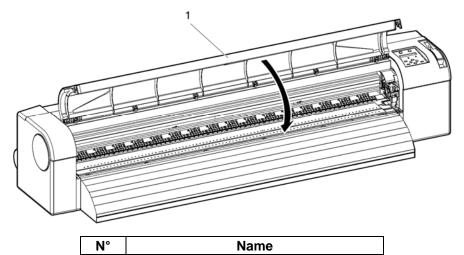
Head height: High

N°	Name
1	Head height adjustment lever

Result: The High indication light on the operation panel lights up in green



**Step 3:** Close the front cover.



# 4.4.5 Media feed compensation

After every printed swat, the media is fed a certain distance. Depending on the kind of media (weight, backing) another media feed compensation has to be set. This to avoid the following phenomenon:

- Printed swats overlap.
- White lines between every swat.

In such cases, follow the procedure below and adjust the media feed compensation value.

Front cover

**Step 1:** Display the Media feed compensation menu on the operation panel.

- Press the [Menu] key.
  - Shift to the Setup menu display.
  - o The operation panel displays "Menu 1: Setup>".
- Press the [>] key.
  - The operation panel displays "Set1: MediaType".
- Press the [Enter] key.
  - o The operation panel displays "Media: Type 1".
- Press the [+] or [–] key to select the media type you wish to use.
- Press the [Enter] key.
  - o The operation panel displays "\*\*>1: Print Mode".

- The selected media (Type 1-30) is displayed in "\*\*". Please refer to "Media Type menu"
  - Press the [+] or [-] key to select "\*\*>2: PF Adjust>".
  - Press the [>] key.
    - o The operation panel displays "PF1: Init.Adj.Print".

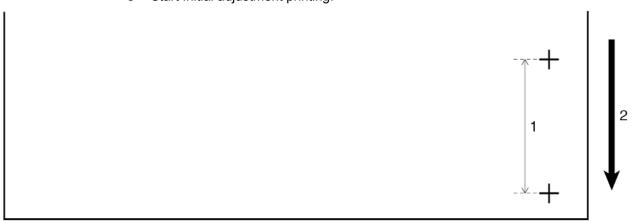


#### Step 2: Perform the initial adjust print.

- Press the [Enter] key.
  - o The operation panel displays "Feed Length: 250 mm".

#### ⚠ Notes ⚠

- The length that media is fed (feeding length) for initial adjustment printing is normally set at 250 mm.
- If you make the feeding length longer, the accuracy of the Media feed compensation improves. If you want to change the feeding length, press the [+] or [-] key and change the set value.
  - Press the [Enter].
    - o The operation panel displays "Printing".
    - Start Initial adjustment printing.



N°	Name
1	Feed length
2	Media feeding direction

- When the initial adjustment printing is complete, the printer enters the normal status
- After the initial adjustment printing, cut the media. Refer to "Cutting media"
- **Step 3 :** Measure the distance between two pluses in the initial adjustment print using a measurement tool, such as a ruler.
- **Step 4:** Set up Initial Adjust Change.
  - Press the [+] or [-] key to select "PF2: Init.Adj.Change".
  - Press the [Enter] key.
    - o The operation panel displays "Init: 250.0/250mm".
  - Press the [+] or [–] key and enter the measured value in step 3.
  - Press the [Enter] key.
    - o The initial adjustment value is saved.
    - The operation panel displays "PF2: Init.Adj.Change".

#### **Step 5:** Perform the Confirm Print.

- Press the [+] or [-] key to select "PF3: Confirm Print".
- Press the [Enter] key.

The operation panel displays "Feed Length: 250 mm".



### **⚠ Notes ⚠**

- The length that media is fed (feeding length) for confirmation printing is set at 250 mm.
- If you make the feeding length longer, the accuracy of the Media feed compensation improves. If you want to change the feeding length, press the [+] or [-] key and change the set value.
  - Press the [Enter].
    - o The operation panel displays "Printing".
    - Start Confirmation adjustment printing.



	N°	Name
Ī	1	Feed length
	2	Media feeding direction

After the confirmation adjustment printing, cut the media. Refer to "Cutting media"

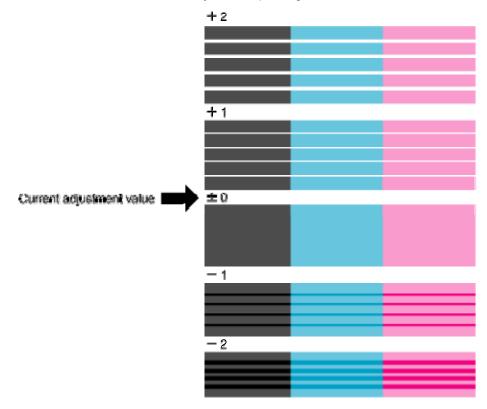
**Step 6 :** Measure the distance between two pluses in the confirmation adjustment print using a ruler. Then, confirm that the distance matches the feeding length when printing.

- If the distance does not match the feeding length, follow the procedure from 1 to 5 and readjust.
- If the distance matches the feeding length, proceed to step 7.



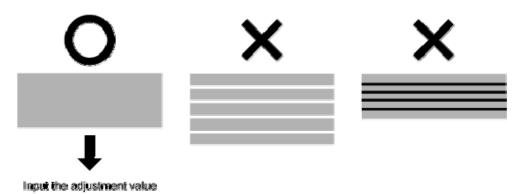
### **Step 7:** Perform Micro adjustment printing.

- Display the Media feed compensation menu as in step 1.
- Press the [+] or [–] key to select "PF4: Micro Adj. Print".
- Press the [Enter] key.
  - o The operation panel displays "Printing".
  - Start Micro adjustment printing.



 After the micro adjustment printing is completed, the operation panel displays "PF4: Micro Adj. Print".

Step 8: Check the printing result.





#### **Step 9:** Set up the Micro Adjustment Change.

- Press the [+] or [–] key to select "PF5: Micro Adj.Change".
- Press the [Enter] key.
  - o The operation panel displays "Micro: Opulse".
- Press the [+] or [–] key and enter the micro adjustment value according to the printing result in step 7.
- Press the [Enter] key.
  - o The micro adjustment value is saved.
  - o The operation panel displays "PF5: Micro Adj.Change".
  - o The Media feed compensation is complete.

# 4.4.6 Replacing roll media

Describes the replacement time and replacement method for roll media.

#### (1) Replacement time

Replace roll media if...

- ...the roll media runs out.
  - The operation panel displays "End of Roll".
  - If the media runs out during printing, the printer stops printing.
- ...you want to change the media type.

#### (2) Replacement steps

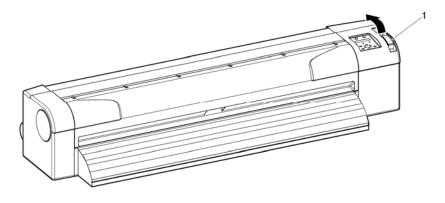
### **△** Caution **△**

- Be careful not to pinch your fingers when opening or closing the front cover.
- 1. Remove the installed roll media.

#### Step 1: Verify that

- the printer is switched ON,
- the printer is in Normal mode, and
- the printer is NOT printing

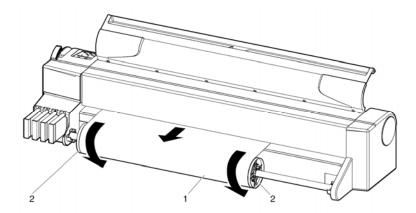
**Step 2 :** Push the media hold lever backward (lever up).



N°	Name
1	Media loading lever

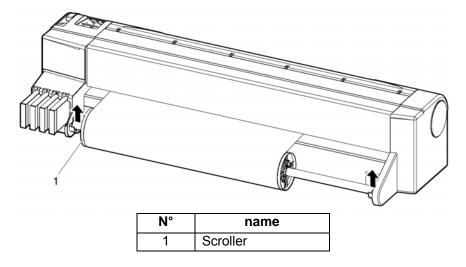


**Step 3:** Lift both ends of the scroller and gently rewind the media.

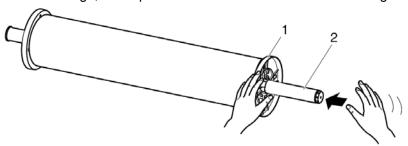


N°	Name
1	Roll media
2	Scroller

**Step 4 :** Remove the scroller from the scroller receiver, and place it on a horizontal surface.



**Step 5 :** Hold the movable flange, and tap the scroller to remove the movable flange.



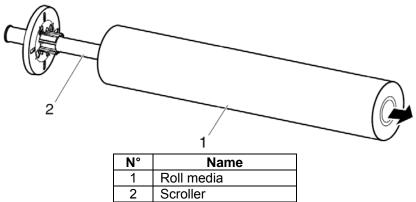
N°	name
1	Movable flange
2	Scroller

**⚠** Notes **⚠** 

Do not drop the media when removing it to prevent damage to the scroller.



Step 6: Remove the roll media from the scroller.



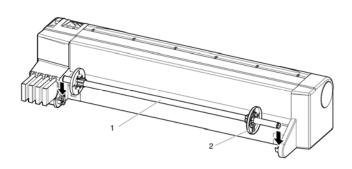
### 2. Install the new roll media

### **⚠ Notes ⚠**

- For loading the roll media, refer to Handling and installing media For roll media you do not use, store it according to Notes on storing media

### ⚠ Notes ⚠

When you do not set roll media, attach the movable flange to the scroller to set the scroller to the printer.



N°	name
1	Movable flange
2	Scroller



# 4.5 TEST PRINT

# 4.5.1 Overview and functions of the test prints

Testplot	Function	Action to be performed when needed		
Nozzle Check	To check the head nozzles.	Perform a head cleaning.		
Mode print	To check the print conditions.	Change print conditions.		
Setup print	To check the current setup of the printer.	Change setup.		
Palette Print	To compare output colours with printing colours.	Check colour mode		

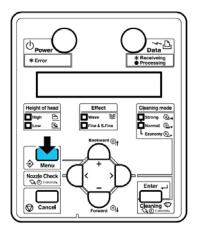
# 4.5.2 Performing a test print

Switch ON the printer and load media.

For more information, please refer to: "Installing roll media" and "Loading roll media"

**Step 1:** Verify that the printer is in Normal mode.

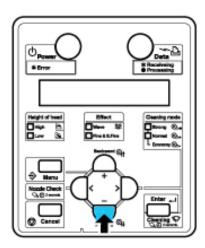
Step 2: Press the [Menu] key.



#### Result:

- The first submenu of the Setup menu is displayed.
- The operation panel displays "Menu 1: Setup>".
- The printer is in Menu mode.

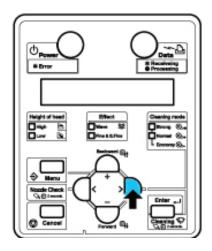
Step 3: Press the [-] key.



Result: The operation panel displays "Menu 2: Test Print>"



Step 4: Press the [>] key.

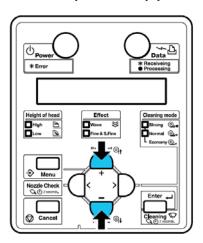


#### Result:

- The operation panel displays "Test1: Nozzle Check".
- The display enters the Test Print menu

**Step 5**: Press the [+] or [–] key to select the item you want to print and press the [Enter] key.

 $\textbf{Submenus:} \cdot \textbf{Nozzle Check} \cdot \textbf{Mode print} \cdot \textbf{Setup print} \cdot \textbf{All Set List} \cdot \textbf{Palette print}$ 



Result: Printing starts for the selected submenu.

#### 

- Please refer to the following topics for details on each item of the test print list:
   Nozzle Check to Palette print
- When "Banner 1" or "Banner 2" is set in the Print Mode menu, "PalettePrint" is not displayed on the Test Print menu.



# 4.5.3 Nozzle check

Used to check whether there are any heads clogging, missing nozzles or misfiring nozzles.

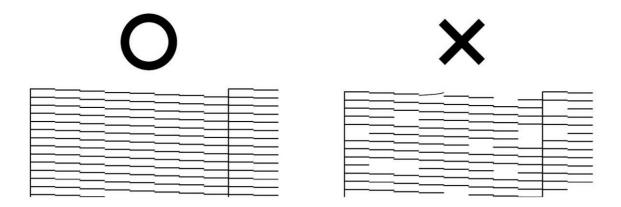
⚠ Notes ⚠

• If the nozzle check result indicates that the checked points are blurred or missing, clean the head. Refer to Head cleaning.

Perform the nozzle check once again after cleaning the head.

⚠ Notes ⚠

For the printing procedure, refer to "Performing a test print".



# 4.5.4 Mode Print

Used to confirm the following printing conditions:

- Print mode
- Pre heater set temperature
- Fixer (Platen) heater set temperature
- Drier heater set temperature
- Adjustment value

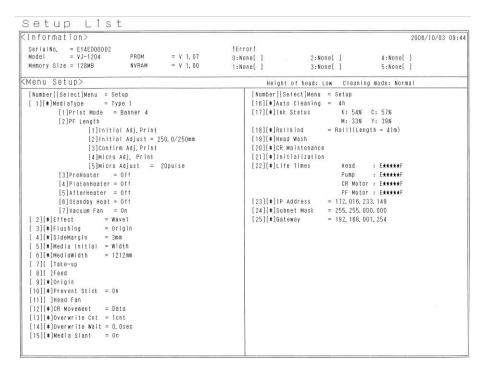
For the printing procedure, refer to "Performing a test print".

2006/01/01 0:00 Q4(720x720Q 8Pass BI)-Nave/Pre:30° C/Platen:30° C/After:30° C/PF Adjust:0



# 4.5.5 Setup print

- User media and print mode lists are printed only when "ALL Set List" is selected.
- For the printing procedure, refer to "Performing a test print".



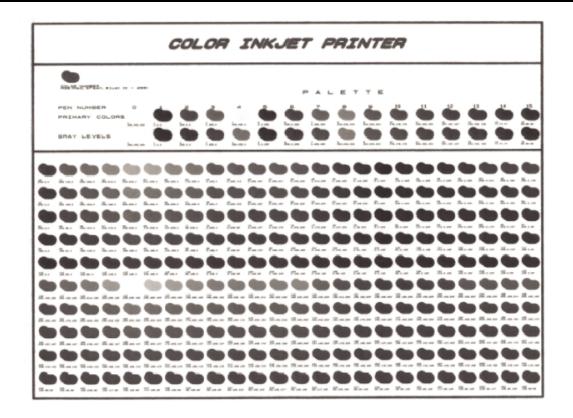
Media Type	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7	Type 8	Type 9	Type10
Print Mode	Banner 4	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2
PF>Initial Adjust	250.0/250mm	250.0/250mm	250.0/250mm	250, 0/250mm	250, 0/250mm	250. 0/250mm	250.0/250mm	250, 0/250mm	250, 0/250mm	250. 0/250mm
PF>Micro(4pass)	20pulse	-10pulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse
PF>Micro(6pass)	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse
PF>Micro(8pass)	- 6pulse	- 6pulse	- 6pulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse
PF>Micro(16pass)	- 3pulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse
PreHeater	Off	45° C	30° C	30° C	30, C	30, C	30° C	30, C	30° C	30° C
PlatenHeater	Off	45° C	30° C	30° C	30, C	30, C	30° C	30, C	30° C	30° C
AfterHeater	Off	45° C	30° C	30° C	30, C	30, C	30° C	30° C	30° C	30° C
Standby Heat	Off	Off	Off	On	On	On	On	On	On	On
Vacuum Fan	On	On	On	On	On	On	0 n	On	On	On
Media Type	Type11	Type12	Type13	Type14	Type15	Type16	Type17	Type18	Type19	Type20
Print Mode	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2
PF>Initial Adjust	250. 0/250mm	250. 0/250mm	250.0/250mm	250, 0/250mm	250, 0/250mm	250. 0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250. 0/250mm
PF>Micro(4pass)	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse
PF>Micro(6pass)	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse
PF>Micro(8pass)	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse
PF>Micro(16pass)	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse
PreHeater	30, C	30° C	30° C	30°C	30° C	30, C	30, C	30, C	30° C	30, C
PlatenHeater	30° C	30° C	30° C	30, C	30° C	30° C	30, C	30, C	30° C	30° C
AfterHeater	30, C	30° C	30° C	30° C	30, C	30, C	30, C	30, C	30° C	30° C
Standby Heat	On	On	On	On	0 n	On	On	On	0 n	On
Vacuum Fan	On	On	On	On	0 n	On	On	On	On	On
Media Type	Type21	Type22	Type23	Type24	Type25	Type26	Type27	Type28	Type29	Type30
Print Mode	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2
PF>Initial Adjust	250, 0/250mm	250.0/250mm	250.0/250mm	250, 0/250mm	250.0/250mm	250. 0/250mm	250.0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm
PF>Micro(4pass)	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse
PF>Micro(6pass)	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse
PF>Micro(8pass)	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse
PF>Micro(16pass)	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse	Opulse
PreHeater	30, C	30° C	30° C	30, C	30, C	30, C	30, C	30, C	30° C	30° C
PlatenHeater	30, C	30° C	30° C	30, C	30° C	30, C	30, C	30, C	30, C	30° C
AfterHeater	30, C	30° C	30° C	30° C	30, C	30, C	30, C	30, C	30° C	30°C
Standby Heat	On	On	On	On	On	On	On	0 n	On	On
Vacuum Fan	On	On	On	On	On	On	On	On	On	On



# 4.5.6 Palette print

Used to compare pen colours used on the computer to the printing colours.

- When "Banner 1" or "Banner 2" is set in the Print Mode menu, "PalettePrint" is not displayed on the Test Print menu.
- For the printing procedure, refer to "Performing a test print".



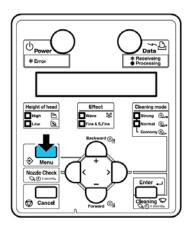


# 4.6 ADJUST PRINT

Used to align the print head.

## ⚠ Notes ⚠

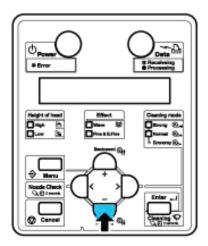
- This printer is adjusted for optimum print quality before shipment at the Mutoh factory.
- Align the print head when the print quality decreases after the installation environment or the media has been changed.
- **Step 1:** Switch on the printer.
- Step 2: Load more than A3 size print media.
- **Step 3:** Confirm that the printer functions normally.
- Step 4: Press the [Menu] key.



#### Result:

- The operation panel displays "Menu 1: Setup>".
- Shift to the Setup menu display.

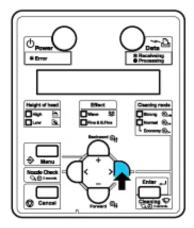
**Step 5:** Press the [–] key twice.



The operation panel displays "Menu 3: Adjust. Print>".

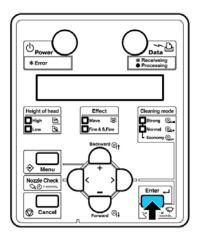


Step 6: Press the [>].

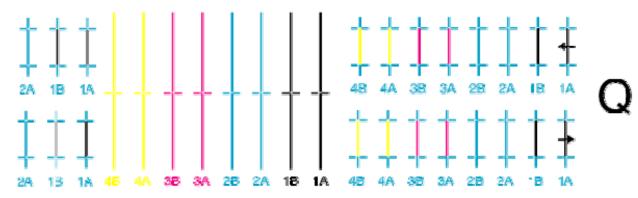


The operation panel displays "Adj.1: Confirm" and enters the Adjust Print menu.

Step 7: Press the [Enter] key.



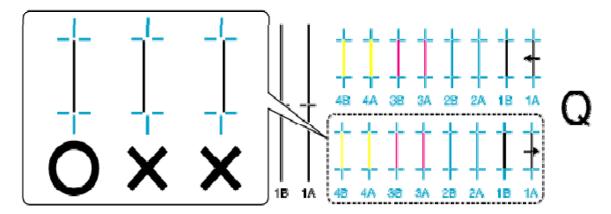
A confirmation pattern is printed.



After the confirmation pattern is printed, the operation panel displays "Adj.1: Confirm".



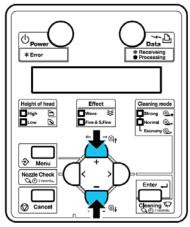
Check that the confirmation pattern printing result is as follows.



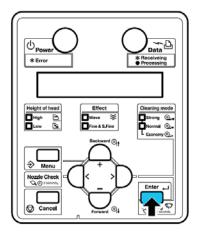
- When the printing result is O: You do not to need perform Alignment.
- When the printing result is X: You need to perform Alignment. Proceed to step 9.

Register a set value for Bi-D Quality (two-way printing/quality priority mode).

Step 8: Press the [+] or [–] key to select "Adj.4: Bi-D Quality".



Step 9: Press the [Enter] key.



Step 10 : Start "Bi-D Quality" pattern printing.



**Step 11 :** Check the "Bi-D Quality" pattern printing and select the number corresponding to the lines that are most closely aligned. "4" is selected in the following printing sample.



**Step 12 :** Press the [+] or [–] key to enter the number that you selected.

Step 13: Press the [Enter] key.

**Step 14 :** The set value for "Bi-D Quality" is registered.

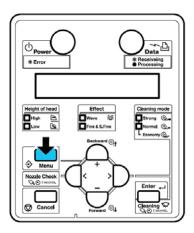
Register a set value for Bi-D Normal (two-way printing/normal mode) as in step 8. Alignment ends.



# 4.7 MENU SETUP ON THE OPERATION PANEL

# 4.7.1 Menu setup procedure

**Step 1:** Verify that the printer is in Normal mode.

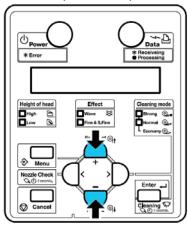


Step 2: Press the [Menu] key.

#### Result:

- The printer is in Menu mode.
- The following message is shown: "Menu 1: Setup>".

Step 3: Press the [+] or [-] key to select a setup item and press the [Enter] key to confirm your choice.



#### Result:

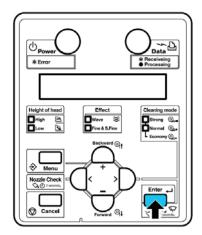
- The settings will be confirmed, OR,
- when a setup item has a submenu, the submenu will be displayed.

#### ⚠ Notes ⚠

- When a setup item has a submenu, [>] is displayed at the right end of the operation panel.
- For details of each setup item, refer to Setup menu
- Press the [+] or [-] key to change the settings on the LCD monitor that are blinking.



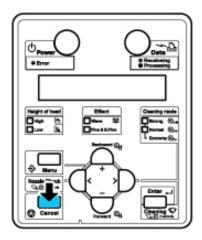
**Step 4 :** To save the changed setting, press the [Enter] key. Result: The setting will be saved and the next setup item will be displayed.



⚠ Notes ⚠

After changing the setting, press the [Cancel] key when the settings do NOT have to be saved.

**Step 5**: Press the [Menu] key or [Cancel] key to exit the setup menu.



#### Result:

- The previous hierarchical setup menu will be displayed.
- When the main menu is displayed, the screen returns to Normal mode.

# 4.7.2 Panel setup menu overview

This sub-section explains the Panel setup menu of the printer.

There are following items in the Panel setup menu.

Setup item	Description
Setup menu	Performs various setup item of the printer
Test Print menu	Perform the nozzle check of the print head and setup list
Adjust Print menu	Print and adjust test patterns for alignment
Cleaning menu	Perform head cleaning
Selection menu	Set up the contents of the Setup menu

**⚠** Notes **⚠** 

For details of each setup item, refer to "Setup menu".



# 4.8 SETUP MENU

The complete menu structure and its function:

Setup item	Description	
MediaType	Set up the media type for printing.	
Effect	Set up the Effect menu.	
Flushing	Set up the Flushing operation while printing.	
Side Margin	Set up the right and left margin when printing.	
Media Initial	Set up whether the media width and edge are detected when initializing the media.	
Media Width/MediaWidth	Set up the media width from the loading mark to the left end if media detection is not performed when initializing the media.  Display the detected media width if media detection is performed when	
	initializing the media.	
Origin	Set the beginning of printing (origin) of the printing data.	
Prev. Stick	Set up to prevent media from sticking when printing.	
CR Movement	Set up the range to move the print head while printing.	
Overwrite Cnt	Set up the Overwrite Cnt per line.	
Overwrite Wait	Set up the waiting time while overwrite printing.	
Slant Check	Set up the slanting detection while loading the media.	
Auto Cleaning	Set up the auto cleaning time while printing.	
Ink Status	Display information (ink status) of ink cassette that was installed into the ink cassette slot.	
Roll Length	Set up the roll media length.	
Head Wash	Perform head cleaning.	
CR Maintenance	Clean the wiper.	
Initialization	The setting value of the printer is returned to default	
Life Times	Display the operational life time of each part.	
IP Address	Sets the IP address of the printer.	
Subnet Mask	Sets the subnet mask of the printer.	
Gateway	Sets the Gateway.	
Temporary	The settings of "Off" or "ALL Off" in the Selection menu are displayed in the Setup menu temporary.	
_	[Cancel] key: Shift to the previous hierarchy.	

# 4.8.1 MediaType menu

Set up the media type for printing.

Setup item	Setting Value	Description
Media	Type 1	Set up the media type for printing.
	Type 2	It is possible to set 30 different user settings as
		"Type 1-30" for printing.
	Type 29	
	Type 30	
	_	[Cancel] key: Save the setting value and shift to
		the previous hierarchy.



#### 4.8.1.1 <u>User media menu</u>

Various settings on the user media can be set.

#### ⚠ Notes ⚠

- If non-compatible media is used, the following problems may occur:
  - Media detection error
  - o Slant, snag and wrinkle of media
  - o Media jams
  - o Optimum printing quality cannot be obtained due to blots, blurs and dirt of ink.
  - End detection of roll media cannot be performed, etc.
- The problems caused by the use of non-compatible will not be covered by the warranty and repair expenses will be paid by the customer.
   For details, contact your MUTOH local dealer.

Setup item	Setting Value	Description
Type 1 to 30	Print mode	Set up the print mode according to the used print data or print speed.
	PF Adjust	Various settings on the Media feed compensation can be set.
	Pre Heater	Set up the Pre Heater temperature.
	Fixer (platen)	Set up the Platen Heater temperature.
	Dryer	Set up the After Heater temperature.
	StandbyHeating	Set up whether the heater is preheated while in standby mode.
	Vacuum Fan	Set up the vacuum fan operation
	_	[Cancel] key: Shift to the previous hierarchy.



# 4.8.1.2 Print Mode menu

Set up the printing quality (print mode) according to the used to print data or print speed.

Setup item	Setting Value	Description	
Mode	Quality 1	Set up the print mode.	
	Quality 2	Quality 1 to 4:	
	Quality 3	Set up to perform high quality printing.	
	Quality 4	Graphics 1 to 2:	
	<graphics 1=""></graphics>	Set up to perform standard printing.	
		Banner 1 to 4:	
	Graphics 2	Set up to perform high speed printing.	
	Banner 1	Display the printing mode while pressing [>] key.	
	Banner 2	Details of the print mode	
	Banner 3	△ Notes △	
	Banner 4		
		When setting "Banner 1" or "Banner 2" in the Print Mode menu,  "PalettePrint" is not displayed in the Test Print menu.	
		Taletter fille 13 not displayed in the Test Fillit mend.	
		[Enter] key: Save the setting and shift to the previous hierarchy.	
		<ul> <li>[Cancel] key: Cancel the setting and shift to the previous hierarchy.</li> <li>"User media menu"</li> </ul>	

#### Details of the print mode

The printing quality mode settings are as follows.

Print mode	Resolution	Print speed	Pass	Direction
Quality 1	1440×1440 dpi	Q (high quality)	16 times	Uni (unilateral)
Quality 2	1440×720 dpi	Q (high quality)	8 times	Uni (unilateral)
Quality 3	720×720 dpi	Q (high quality)	8 times	Uni (unilateral)
Quality 4	720×720 dpi	Q (high quality)	8 times	Bi (bidirectional)
Quality 5 *	720×720 dpi	N (normal)	8 times	Bi (bidirectional)
Graphics 1	720×720 dpi	N (normal)	8 times	Uni (unilateral)
Graphics 2	720×720 dpi	N (normal)	8 times	Bi (bidirectional)
Graphics 3 *	720×720 dpi	N (normal)	8 times	Bi (bidirectional)
Banner 1	540×720 dpi	N (normal)	6 times	Uni (unilateral)
Banner 2	540×720 dpi	N (normal)	6 times	Bi (bidirectional)
Banner 3	720×720 dpi	Q (high quality)	4 times	Uni (unilateral)
Banner 4	720×720 dpi	N (normal)	4 times	Bi (bidirectional)

### ⚠ Notes ⚠ ■

Print modes are only selectable via RIP and not visible on the VJ-1204 panel.

## 4.8.1.3 <u>Dist.Adj menu</u>

Various settings on the Media feed compensation can be set.

Setup Item	Setting Value	Description
PF	Init.Adj.Printv	Perform the initial adjust print.
	Init.Adj.Change	Set up Initial Adjust Change.
	Confirm Print	Perform the Confirm Print.
	Micro Adj. Print	Perform the Micro Adjustment Print
	Micro Adj.Change	Set up the Micro Adjustment Change.
	_	[Cancel] key: Shift to the previous hierarchy.



### 4.8.1.4 <u>Init.Adj.Print menu</u>

Perform the initial adjust print.

Setup Item	Setting Value	Description
Feed Length	100 mm to <250 mm> to 500 mm	Change the length (feed length) of the media feed direction for the initial adjust print.  • [Enter] key:  The setting value is determined.  "Printing" is displayed on the operation panel and the initial adjust print is started.  After printing, the printer enters in the normal status.
		<ul> <li>[Cancel] key: Cancel the setting value and shift to the previous hierarchy.</li> </ul>

## 4.8.1.5 <u>Init.Adj.Change menu</u>

Set up Initial Adjust Change.

Setup Item	Setting Value	Description
Init.	200.0 mm to <250.0 mm> to 300.0 mm	Set up Initial Adjust Change.
	_	<ul> <li>[Enter] key: Save the setting and shift to the previous hierarchy.</li> <li>[Cancel] key: Cancel the setting and shift to the previous hierarchy.</li> </ul>

# 4.8.1.6 <u>Confirm Print menu</u>

Perform the Confirm Print.

Setup Item	Setting Value	Description
Feed Length	100 mm to <250 mm> to 500 mm	Change the length (feed length) of the media feed direction for the Confirm Print.  • [Enter] key:  The setting is determined.  "Printing" is displayed on the operation panel and initial adjust print is started.  After printing, the printer enters the normal status.
	_	<ul> <li>[Enter] key: Save the setting and shift to the previous hierarchy.</li> <li>[Cancel] key: Cancel the setting and shift to the previous hierarchy.</li> </ul>

## 4.8.1.7 <u>Micro Adj. Print menu</u>

Perform the Micro Adjustment Print.

Setup Item	Setting Value	Description
Micro Adj. Print	Printing	Print the following PF pattern (micro adjustment) with a focus on the micro adjustment value.  • Printing interval: ± 1 pulse
	_	[Cancel] key: Shift to the previous hierarchy.  If the printer is terminated during printing it shifts to the previous level.

### 4.8.1.8 <u>Micro Adj.Change menu</u>

Set up the Micro Adjustment Change.

Setup Item	Setting Value	Description
Micro Adj.Change	-20 pulse to <0 pulse > to 20 pulse	Set up the Micro Adjustment Change.
		<ul> <li>[Enter] key: Save the setting and shift to the previous hierarchy.</li> <li>[Cancel] key: Cancel the setting and shift to the previous hierarchy.</li> </ul>



#### 4.8.1.9 Pre Heater menu

Set up the Pre Heater temperature. Set up to acclimatize and preheat the media before printing.

#### ⚠ Notes ⚠

The temperature to be set for the Pre Heater varies depending on the media which is used.
 For recommended temperature settings of Pre Heater, refer to the "Recommended media list".

Setup Item	Setting Value	Description
Pre Heater	Off / <30° C> to 50° C	Set up the Pre Heater temperature.
		<ol> <li>Roll media</li> <li>Pre Heater</li> </ol>
		3. Print head
	_	<ul> <li>[Enter] key: Save the setting and shift to the previous hierarchy.</li> </ul>
		[Cancel] key: Cancel the setting and shift to the previous hierarchy.

#### 4.8.1.10 Fixer (platen) menu

Set up the Fixer (Platen) Heater temperature.

Set up this menu to warm up the loaded media and improve the printing quality. (Ink fixation)

### ⚠ Notes ⚠

Preset temperature to be set for the Fixer (Platen) varies depending on the media which is used.
 For recommended temperature settings of Fixer (Platen), refer to the "Recommended media list".

Setup Item	Setting Value	Description
Fixer (platen)	Off / <30° C> to 50° C	Set up the fixer (platen) temperature.
Heater		
		<ol> <li>Roll media</li> <li>Fixer (Platen) Heater</li> <li>Print head</li> </ol>
	_	[Enter] key: Save the setting and shift to the previous hierarchy.
		<ul> <li>[Cancel] key: Cancel the setting and shift to the previous hierarchy.</li> </ul>



#### 4.8.1.11 <u>Dryer menu</u>

Set up the After Heater temperature. Set this menu to dry the print.

#### ⚠ Notes ⚠

 Temperature to be set for the after Heater varies depending on the media which is used for recommended temperature settings of the after Heater; refer to the "Recommended media list".

Setup Item	Setting Value	Description
After Heater	Off / <30° C> to 50° C	Set up the after Heater temperature.
		Roll media     Dryer- After heater
		3. Print head
	_	<ul> <li>[Enter] key: Save the setting and shift to the previous hierarchy.</li> </ul>
		• [Cancel] key: Cancel the setting and shift to the previous hierarchy.

### 4.8.1.12 StandbyHeating menu

Set up whether each heater is preheated (idle heat) while in standby mode.

Setup Item	Setting Value	Description	
StandbyHeating	Off	Idle heat is not performed.	
	<on></on>	Idle heat is performed.	
	_	<ul> <li>[Enter] key: Save the setting and shift to the previous hierarchy.</li> <li>[Cancel] key: Cancel the setting and shift to the previous hierarchy.</li> </ul>	

#### 4.8.1.13 Vacuum Fan menu

Set up the vacuum fan operation.

Setup Item	Setting Value	Description	
Vacuum Fan	Low	Set when using soft media.	
	<high></high>	Set when regular media is used.	
	_	<ul> <li>[Enter] key: Save the setting and shift to the previous hierarchy.</li> <li>[Cancel] key: Cancel the setting and shift to the previous</li> </ul>	
		hierarchy.	



# 4.8.2 Effect menu

Set up the Effect menu.

Use this menu to improve the print quality by means of intelligent interweaving print algorithms (i²)

Setup Item	Setting Value	Description
	None 1 None 2	The Effect function is not used. If obvious white lines or uneven print density appears on the printed media in "None 1", set to "None 2"
	Wave 1	The printing joint will be the wave form. It will improve the print quality. If
	Wave 2	obvious white lines or uneven print density appears on the printed media in "Wave 1", set to "Wave 2"
	Fuzz 1	The printing joint will shade off as the wave form. Set up this menu
	Fuzz 2	when obvious white lines or uneven print density appears on the printed media in the "Wave" setting.
	WOW 1	Set when colours become irregular. If irregular colours are not fixed
	WOW 2	using "Wow 1" set to "Wow 2"
	Fine&Wave 1	Perform printing at a slow speed compared with "Wave". Set up this
	Fine&Wave 2	menu when improving the print quality compared with "Wave". If
		obvious white lines or uneven print density appears on the printed
Effect	F: 0F 4	media in "Fine&Wave 1", set to "Fine&Wave 2".
	Fine&Fuzz 1 Fine&Fuzz 2	Perform printing at a slow speed compared with "Wave". Set up this menu when improving the print quality compared with "Wave". If
	Fine&FuZZ Z	obvious white lines or uneven print density appears on the printed
		media in "Fine&Fuzz 1", set to "Fine&Fuzz 2".
	A-S. Fine&Wave	Performs "Wave" printing using one side of the nozzles of the print
		head. Since you are using only one side of the nozzles, the print speed
		is reduced by half of "Wave 1" and "Wave 2" Set up this menu when
		improving the print quality compared with "Fine&Wave1" and
	B-S. Fine&Wave	"Fine&Wave2"  Deforms "Wave" printing using the other side of the partles of the print
	b-5. Filleavvave	Performs "Wave" printing using the other side of the nozzles of the print head. Since you are using only one side of the nozzles, the print speed
		is reduced by half of "Wave 1" and "Wave 2" Set up this menu when
		improving the print quality compared with "Fine&Wave1" and
		"Fine&Wave2"
	-	

# 4.8.3 Flushing menu

Set up the Flushing operation while printing.

Setup Item	Setting Value	Description
Flushing	Origin	Every time the print head goes and returns. The flushing operation is performed in the flushing box.
	<on media=""></on>	Perform the flushing operation on the page margins. Improves the print quality since returning to the flushing box.
	_	[Cancel] key: Cancel the setting and shift to the previous hierarchy.



#### 4.8.3.1 Flushing return count menu

Set the frequency (flushing return count) that the print head returns to the original flushing box when setting "On Media" in the Flushing menu.

#### ⚠ Notes ⚠

When increasing the flushing return count, clogging may occur while printing continuously.

Setup Item	Setting Value	Description	
Return count	-999 5 999	Set the flushing return count.  Example	
		<ul> <li>-1: returns to flushing box every print head movement, no flushing on media.</li> </ul>	
		0: No flushing done during printing	
		<ul> <li>5: returns to flushing box every 5 print head movements, flushing on media.</li> </ul>	
	_	<ul> <li>[Enter] key: Save the setting and shift to the previous hierarchy.</li> </ul>	
		<ul> <li>[Cancel] key: Cancel the setting and shift to the previous hierarchy.</li> </ul>	

# 4.8.4 Side Margin menu

Set up the right and left margin (side margin) while printing.

Setup Item	Setting Value	Description
Count	<3 mm> to 25 mm	Set the side margin.
	_	<ul> <li>[Enter] key: Save the setting value and shift to the previous hierarchy.</li> <li>[Cancel] key: Cancel the setting value and shift to the previous hierarchy.</li> </ul>

#### **⚠** Notes **⚠**

When selecting "On Media" in the Flushing menu, the value of the Side Margin is set automatically.

# 4.8.5 Media Initial menu

Set up whether the media width and edge are to be detected when initializing the media.

Setup Item	Setting Value	Description	
Init.	Off	The media is not detected.	
		⚠ Notes ⚠	
		Set the media width that is set in the Media Width menu when setting "Off" in the Media detection menu	
	Top&Width	Detect the media width and edge while initializing the media.	
	<width></width>	Detect the media width while initializing the media.	
	_	[Enter] key: Save the setting value and shift to the previous hierarchy.	
		<ul> <li>[Cancel] key: Cancel the setting value and shift to the previous hierarchy.</li> </ul>	



# 4.8.6 Media Width / Media Width menu

If media detection is switched OFF, the media width menu allows you to manually enter the media width.

#### 4.8.6.1 Media Width menu

## ⚠ Notes ⚠

Setting a larger value than the media width set in the Media Width menu may cause ink to be fired onto the printer.

Setup Item	Setting Value	Description
Media Width	210 mm to <1,000 mm> to 1,225 mm	Set the media width.
	_	<ul> <li>[Enter] key: Save the setting and shift to the previous hierarchy.</li> <li>[Cancel] key: Cancel the setting and shift to the previous hierarchy.</li> </ul>

## 4.8.6.2 <u>MediaWidth</u> menu

Setup Item	Setting Value	Description
MediaWidth	**** mm	Display the media width that is detected while initializing.
	_	[Cancel] key: Shift to the previous hierarchy.



# 4.8.7 Origin menu

Set this menu when reprinting on the margin, when the printing data position is changed to the position of the already printed media.

Setup Item	Setting Value	Description
Origin	X (media feeding distance):     00000 mm to 9,999 mm     Y (print head transferring distance): 00000 mm to 99999 mm	Change the print head position and media feeding distance with the following keys.  [>] key: Decrease the print head transferring distance. [<] key: Increase the print head transferring distance. [+] key: Increase the media feeding distance. [-] key: Decrease the media feeding distance.  1. Starting position
		Media feeding direction     [Enter] key:     Display "Moving Origin Pos.", and move the print head to the starting position.     The operation panel displays the following contents.
	Confirm Position→E	[Enter] key or after a certain period of time:     The setting value is determined.     Print head returns to the original position.     Save the setting and shift to the previous hierarchy.
	_	[Cancel] key: Cancel the setting and shift to the previous hierarchy.

# 4.8.8 Prev. Stick menu

Set up to prevent jam prints from sticking when printing.

Setup Item	Setting Value	Description
Prev. Stick	Off	Sticking prevention is not performed
	<on></on>	The sticking prevention is performed.
		Feed the media back and forth to prevent sticking.
	_	<ul> <li>[Enter] key: Save the setting value and shift to the previous hierarchy.</li> <li>[Cancel] key: Cancel the setting value and shift to the previous hierarchy.</li> </ul>

# 4.8.9 CR Movement menu

Set up the range to move the print head while printing.

Setup Item	Setting Value	Description
CR Movement	<data> The print head changes the range of the print data width. Improve the print speed since decreasing the transferring the print head.</data>	
	Machine	The print head moves from origin to the maximum paper width.
	_	<ul> <li>[Enter] key: Save the setting value and shift to the previous hierarchy.</li> <li>[Cancel] key: Cancel the setting value and shift to the previous hierarchy.</li> </ul>



# 4.8.10 Overwrite Cnt menu

Set up the Overwrite Cnt per line.

Setup Item	Setting Value	Description
Overwrite Cnt	<once> to 9 times</once>	Set the overwrite count.
	_	<ul> <li>[Enter] key: Save the setting and shift to the previous hierarchy.</li> <li>[Cancel] key: Cancel the setting and shift to the previous hierarchy.</li> </ul>

# 4.8.11 Overwrite Wait menu

Set up the waiting time while overwrite printing.

### ⚠ Notes ⚠

 The heater is not warming the media enough, causing less printing quality. In this case, set the Overwrite Wait time and warm up the media.

Setup Item	Setting Value	Description
Overwrite Wait	<0s> to 0.1s to 5.0s	Set the Overwrite Wait time.
	_	<ul> <li>[Enter] key: Save the setting and shift to the previous hierarchy.</li> <li>[Cancel] key: Cancel the setting and shift to the previous hierarchy.</li> </ul>

# 4.8.12 Slant Check menu

Set up the slanting detection while loading the media.

Setup Item	Setting Value	Description
Slant Check	Off	Slant Check is not performed.
	<on></on>	Slant Check is performed.
	_	[Enter] key: Save the setting and shift to the previous hierarchy.
		[Cancel] key: Cancel the setting and shift to the previous
		hierarchy.

# 4.8.13 Auto Cleaning menu

Set the auto cleaning interval of the printer. Prevents the print head from clogging.

Setup Item	Setting Value	Description
Waiting time (cleaning	03601440	0: no auto cleaning is done <value>: when <value> elapsed,</value></value>
during standby)	min	the cleaning cycle selected in the panel is executed
Printing time (cleaning	05180 min	0: no auto cleaning is done <value>: when <value> elapsed,</value></value>
during printing)		the cleaning cycle selected in the panel is executed.
before print	[OFF] / [ON]	ON: cleaning cycle selected in the panel is executed before
		printing starts

# 4.8.14 Ink Status menu

Display information (ink status) of ink cassette that installed into the ink cassette slot.

## ⚠ Notes ⚠

When displaying the Ink Status menu, use the genuine ink cassette. When using ink cassette other than the genuine ones, the ink status will not be displayed correctly.

Setup Item	Setting Value	Description
KCMY	0 - 100 (Unit: %)	Residual ink quantity of K, C, M and Y colour is displayed.



_	[Cancel] key: Shift to the previous hierarchy.

# 4.8.15 Roll Length menu

Set up the roll media length.

Setup Item	Setting Value	Description
Roll media	<off></off>	Roll Length is not used.
	Roll1	Set up the roll media length.
	Roll2	The Roll Length setting can be set for "Roll1" to "Roll3".
	Roll3	
	_	[Cancel] key: Cancel the setting and shift to the previous hierarchy.

### 4.8.15.1 Roll Length menu

Set up the roll media length.

Setup Item	Setting Value	Description
Length	1m to <30m> to 99m	Set the roll media length.
		<ul> <li>Notes  </li> <li>When replacing the roll media, adjust the roll media length again.</li> <li>If the roll media length is not set, the residual quantity of roll media will not be displayed correctly.</li> </ul>
	_	<ul> <li>[Enter] key: Save the setting value and shift to the previous hierarchy.</li> <li>[Cancel] key: Cancel the setting and shift to the previous hierarchy.</li> </ul>

# 4.8.16 <u>Head Wash menu</u>

Perform head cleaning.

⚠ Notes ⚠

Make sure to use a genuine cleaning fluid (model N°: RJ80U-22-CLN).

Setup Item	Setting Value	Description
Head Wash	Start	Perform head cleaning.
		[Enter] key:
		Perform the head cleaning operation.
		The operation panel displays the following contents.
	Remove	Remove the ink cassette, and install the cleaning cassette.
	cassettes	
	_	[Cancel] key: Shift to the previous hierarchy without the head cleaning
		operation



# 4.8.17 CR Maintenance menu

Clean the wiper.

Setup Item	Setting Value	Description
CR Maintenance	Start	Clean the wiper.
		[Enter] key:
		The print head moves to centre.
		The wiper moves forward.
	End	Cleaning the wiper is complete.
		[Enter] key:
		Print head returns to the original position.
		The wiper returns to the original position.
	_	[Cancel] key: Shift to the previous hierarchy without the wiper
		cleaning operation.

# 4.8.18 <u>Initialization menu</u>

Setup Item	Setting Value	Description	
Initialization	ALL	All settings can be returned to factory default.	
	MediaType	The settings of the MediaType menu are returned to factory default.	
	Except MediaType	The settings other than the MediaType menu are returned to factory default.	
	_	<ul> <li>[Enter] key:         Display "Initialling" on the operation panel, and initialize the setting.     </li> <li>[Cancel] key: Shift to the previous hierarchy without initialization.</li> </ul>	

# 4.8.19 <u>Life Times menu</u>

Displays the operational life time of each part.

Setup Item	Setting Value	Description	
Life Times	Head	Display the operational life of each part.	
	Pump	Five asterisks (=100%) display the operational life of a part.	
	CR Motor	As the part deteriorates, the number of asterisks decreases one by	
	PF Motor	one (20 %).	
		<ul> <li>The part should be changed when all of the asterisks have disappeared, and "Change" is displayed.</li> </ul>	
	_	[Cancel] key: Shift to the previous hierarchy.	

⚠ Notes ⚠

Do not keep using a part that reached its life span to keep the part its warranty.

# 4.8.20 <u>IP Address menu</u>

⚠ Notes ⚠

Be sure to set the IP address after consulting your network administrator.

Setup Item	Setting Value	Description
IP Address	000.000.000.000~ <192.168.001.253>~	Use following keys to change the IP address:
	255.255.255.255	<ul><li>[+] key: Increase the value.</li><li>[-] key: Decrease the value.</li></ul>
		<ul> <li>[Enter] key: Change the value for the next segment.</li> </ul>
	_	[Cancel] key: Save the setting and shift to the previous
		hierarchy.



# 4.8.21 Subnet Mask menu

⚠ Notes ⚠

Be sure to set the subnet mask after consulting your network administrator.

Setup Item	Setting Value	Description
Subnet Mask	000.000.000.000~ <255.255.255.000>~ 255.255.255.255	<ul> <li>Use following keys to change the subnet mask:</li> <li>[+] key: Increase the value.</li> <li>[-] key: Decrease the value.</li> <li>[Enter] key: Change the value for the next segment.</li> </ul>
	_	[Cancel] key: Save the value and shift to the previous hierarchy.

# 4.8.22 Gateway menu

⚠ Notes ⚠

Be sure to set the gateway after consulting your network administrator.

Setup Item	Setting Value	Description
Gateway	000.000.000.000~	Use following keys to change the gateway:
	<192.168.001.254>~	[+] key: Increase the value.
	255.255.255.255	[–] key: Decrease the value.
		[Enter] key: Change the value for the next segment.
	_	• [Cancel] key: Save the setting and shift to the previous hierarchy.

# 4.8.23 <u>Sleep mode menu</u>

When you activate sleep mode, the printer operates as follows.

- The exhaust fan stops.
- The paper-lifting fan stops.
- All heaters stop
- All lamps switch OFF except for the power lamp.
- Automatic head cleaning is performed after the time set in the "Timer setting" menu has expired.

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# 4.9 OPERATING FROM THE OPERATION PANEL

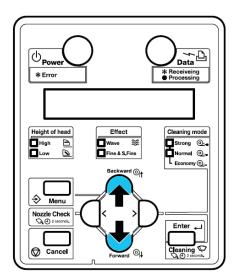
This section describes various functions which can be operated from the operation panel.

# 4.9.1 Feeding media

**Step 1:** Verify that the printer is in Normal mode.

**Step 2 :** Check that the media hold lever is positioned to the front side (lever down).

**Step 3 :** Press the [Forward feed↓] or [Backward feed↑] key.



Result: Media is fed forward or backward.

#### ⚠ Notes ⚠

• When sheet media has been loaded, media feed cannot be performed.

**Step 4 :** Release the [Backward feed ↑] key [Forward feed ↓] key after feeding the media to the desired position.

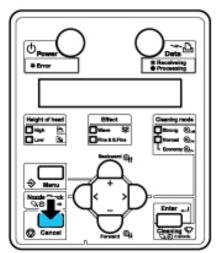


# 4.9.2 Stop printing

To stop printing:

• Press the [Cancel] key on the operation panel.

Result: The printer will operate as follows:



Result: The printer will operate as follows:

Printer Status	Operation with the [Cancel] key pressed
Printing	Terminates printing and deletes the non printed data.

### ⚠ Notes ⚠

• If a large amount of data is saved on the printer, the operation panel may not return to normal status by a single [Cancel] key operation. In such cases, wait for a few seconds and press the [Cancel] key again.



# 4.9.3 Cutting media

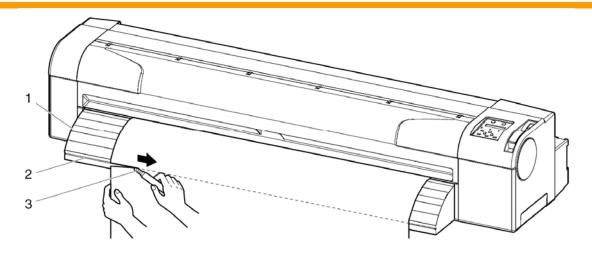
• When a print is finished, wait until the media guide is cooled off before cutting. This to let the ink dry and not to burn yourself.

Regarding the operating condition of the printer, check the following:

- o Printing or other operations are not performed.
- o Make sure that the display shows the normal state.
- **Step 1 :** If the roll media cut position is changed, refer to **Feeding media** and advance the roll media to the desired cut position.
- Step 2: Place a razor blade on the media cut groove on the media guide, and cut the roll media.

**△** Caution **△** 

 When cutting media, move the razor blade along the media cut groove and be careful not to place your finger on the media cut groove.



N°	name
1	Media guide
2	Media cut groove
3	Razor blade

Result: Cutting roll media is complete.

⚠ Notes ⚠

If the front edge of the media is not straight when loading the new roll media, cut it straight.



# 4.9.4 Changing and confirming settings on the fly

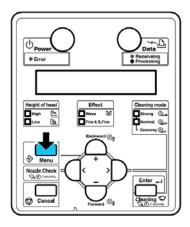
While the printer is operating, you can change or confirm settings for the Panel setup menu.

4.9.4.1 <u>Procedure for changing and confirming set settings while printing</u>

**Step 1 :** Confirm that the printer is in one of the following situations.

- Receiving
- Converting
- Printing
- Warming Up

Step 2: Press the [Menu].



Result: The operation panel displays "Menu 1: Print Start".

**Step 3:** Press the [+] or [–] key to change or confirm settings.

#### 

 For the settings which can be changed or confirmed, refer to settings that can be changed or confirmed while printing.

#### 4.9.4.2 <u>settings that can be changed or confirmed while printing</u>

Setup Item	Setting	Description
Print start	-	[Enter] key: If the heater temperature does not reach the set
		value during warming-up, printing starts.
Temperature	Pre	Check the current Pre Heater temperature.
	Fixer (platen)	Check the current Fixer (Platen) temperature.
	Dryer	Check the current Dryer temperature.
Pre Heater	Off / 30 °C to 50°C	Change the Pre Heater temperature.
Fixer (Platen)	Off / 30 °C to 50°C	Change the fixer (platen) temperature.
Dryer	Off / 30 °C to 50°C	Change the dryer temperature.
PF Adjust	-20 pulse to 0 to 20 pulse	Change the feed adjustment value.
Backup	-	[Enter] key: Save the changed settings.
	-	[Cancel] key: The printer enters in the normal condition

#### ∧ Notes ∧

- The Print start menu is displayed only when the printer is warming up.
- When you change the settings during operation, be sure to select "Backup" to save the changed value.

If the printer returns to normal status without selecting "Backup", the changed value is not saved.



# 4.9.5 Pause printing

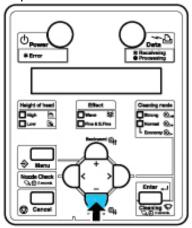
It is possible to pause during a printing operation. Follow the procedure below to pause or restart printing.

⚠ Notes ⚠

• If the printing is paused, the print quality is not guaranteed.

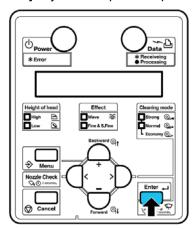
Step 1 Check that the printer is operating normally.

Step 2 Press the [-] key on the operation panel.



- The printer pauses the printing operation.
- "PrintRestart -> ENTER" is displayed on the operation panel.

**Step 3** To restart printing, press the [Enter] key on the operation panel.



• The printer restarts printing.

# **5 PERIODICAL MAINTENANCE**

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# **5.1 DONE BY END USER**

This section describes the periodical services required on a ValueJet 1204 series printer. The periodical maintenance ensures stable printout quality of the machine. In the periodical maintenance, some service parts need to be checked, cleaned ore replaced.

#### 

• Be sure to wear gloves when working with inks or cleaning liquid.

#### 

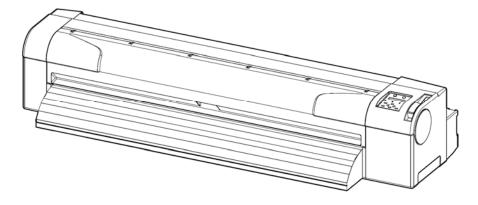
- . Be sure to switch OFF the printer and to disconnect the power plug when cleaning it.
- Do not use volatile solvents such as thinners, benzene or alcohol. These solvents could damage the printer.
- Be careful that moisture does not enter the printer. There is a possibility that electric circuits inside the printer get short circuited.
- Do not open the covers attached with screws. There is the possibility of an electric shock or printer breakdown.

maintenance	frequency
Outer case	Deily
Inside the printer	Daily
Head cleaning	If print becomes blurred or incomplete
Cleaning the wiper	Weekly
Replace the spitting box sponges	Bi-monthly
Clean the media guide platen	
Clean the timing fence	
Clean the P-rear sensor surface	Soveral times a year
Clean the Y-rail	Several times a year
Clean the pressure rollers	
Replacing waste fluid tank	

<sup>\*\*\*:</sup> Please contact your local Mutoh reseller for ordering parts.

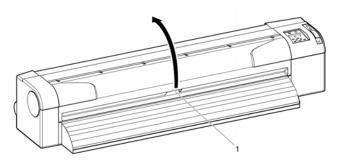
# 5.1.1 Cleaning the outer case

**Instruction:** Use a soft cloth to wipe off the dust and possible dirt from the outer case.



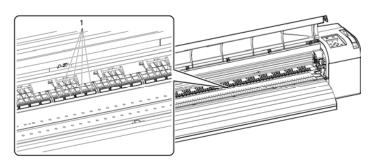
# 5.1.2 Cleaning inside the printer

**Step 1:** Open the front cover.



N°	Name	
1	Front cover	

**Step 2 :** Remove paper powder and dust from the pressure rollers, using a soft brush.

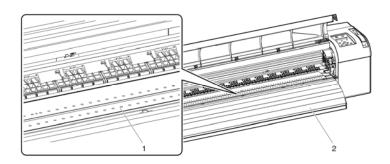


N'	0	Name	
1		Pressure rollers	

⚠ Notes ⚠

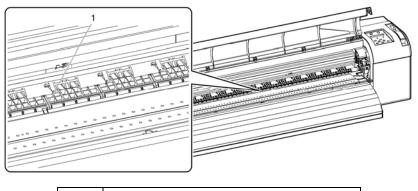
Do not blow paper powder and dust from the pressure rollers, remove media while cleaning.

**Step 3 :** Wipe off paper powder and ink from the platen using a dust-free and soft cloth slightly damped with water.



N°	Name
1	Platen
2	Media Guide

**Step 4 :** Wipe off the dirt of the grid roller's unpainted (silver colour) area with damp and a tightly squeezed soft cloth.



N°	Name
1	Grid roller

# 5.1.3 Head cleaning

### When to perform?

If the prints become blurred or are incomplete.

### How to perform?

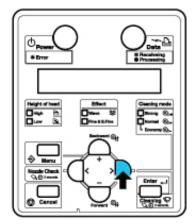
⚠ Notes ⚠

Remove media while cleaning.

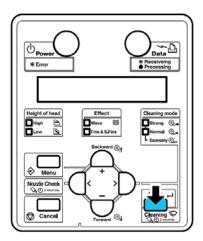
**Step 1 :** Verify that the operation panel is in Normal mode.

**Step 2 :** Verify that the media hold lever is positioned to the front side. (lever down)

**Step 3 :** Press the [>] key to select the cleaning mode.



**Step 4:** Press the [Cleaning] key for at least 2 seconds.



Result: The operation panel displays "Cleaning \*\*%.

**Step 5:** Start the head cleaning.

#### ⚠ Notes ⚠

- Pressing the [Cleaning] key again after the first head cleaning is done to perform a strong cleaning.
- If you fail to remove blurs or incompleteness of printing in one head cleaning, you should perform the strong cleaning.
- If you fail to remove blurs or incompleteness of printing with several head cleaning, refer to Troubleshooting, and perform the adequate process.

## ⚠ Notes ⚠

If you perform a cleaning and the ink level reaches its end, an ink end ink message is displayed.

# 5.1.4 Cleaning the wiper

#### 5.1.4.1 Cleaning time

Once a week or when blurs or incompleteness in printing remain after head cleaning.

#### 5.1.4.2 Cleaning steps

### **⚠ Notes ⚠**

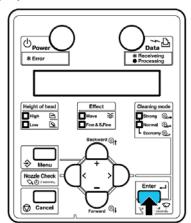
· Use the poly-knit wiper when cleaning the wiper.

#### **Step 1 :** If the printer is switched ON, make sure that:

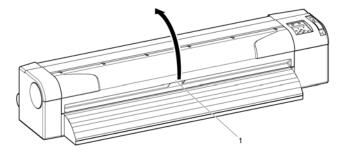
- Printing or other operations are not in progress.
- The display is in the normal state.

#### Step 2: Press the [Enter] key.

- The printer starts cleaning the wiper.
- The operation panel displays "CR Maintenance: End".



**Step 3:** Open the front cover.



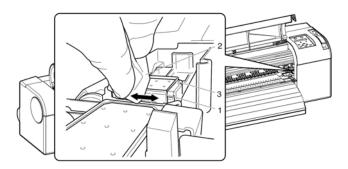
N°	Name	
1	Front Cover	

## **⚠ Notes ⚠**

- . While cleaning the wiper
  - o Do not touch the wiper and head cap unit with your hands,
  - o Head cleaning may not be performed correctly because of the grease on your hands.

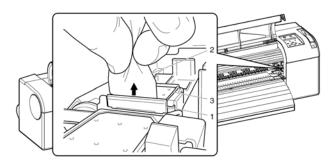
**Step 4 :** Use the poly-knit wiper, and remove the ink and dust on the wiper.

Wiper front side: Wipe horizontally.



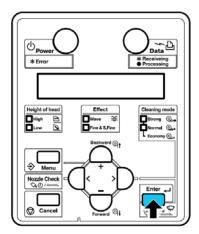
N°	Name	
1	Cleaning wiper	
2	Poly-knit wiper	
3	Head cap unit	

Wiper back side: Wipe vertically.



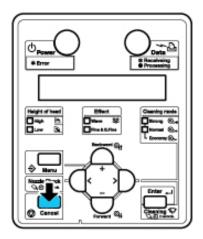
N°	Name	
1	Cleaning wiper	
2	Poly-knit wiper	
3	Head cap unit	

Step 5: Press the [Enter] key.



- The print head section returns to the original position.
- The wiper returns to the original position.
- The operation panel displays "CR Maintenance: Start".

#### Step 6: Press the [Cancel] key.



- The printer enters normal status.
- Cleaning the wiper is complete.

# 5.1.5 Replacing waste fluid tank

### 5.1.5.1 Replacement time

Replace the waste fluid tank if...

- ..."NearFullWasteInkTank" is displayed.
  - The waste fluid tank shortly will become full.
  - Printing continues.

Action: Prepare a waste fluid tank for replacement before the waste fluid tank is full.

- ..."FullWasteInkTank" is displayed.
  - The waste fluid tank is full.
  - Printing stops.

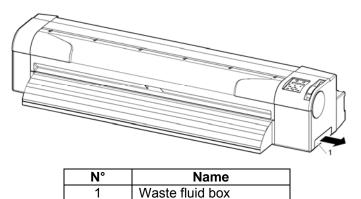
Action: Immediately replace the waste fluid tank.

## 5.1.5.2 <u>Type</u>

Description	Model N°
Waste fluid tank	DE-36814

#### 5.1.5.3 Replacement steps

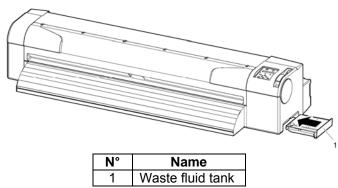
- **Step 1** Verify that the printer is switched ON.
- Step 2 Pull out the waste fluid tank.



Result: No Waste fluid tank" is displayed.

⚠ Notes ⚠

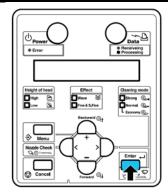
- Put used waste fluid tank in a vinyl bag or bag used for this kind of waste. Disposal of a waste fluid tank must be done in compliance with the regulations and instructions of the local authorities.
  - **Step 3** Install a new waste fluid tank in the.



- Step 4 Verify that the operation panel displays "Exchange Tank? No".
- **Step 5** Select "Exchange Tank? Yes" and press the [Enter] key.

⚠ Notes ⚠

 If the waste fluid tank is not replaced, press the [Enter] key with "Exchange Tank? No" displayed.



# 5.1.6 Replacing the spitting box absorbent

### 5.1.6.1 <u>Pre-transport procedure</u>

Replace the spitting box absorbent in the following situations.

- When the spitting box absorbent becomes deformed.
- When smears of ink appear on the media
- Two months after replacement.

#### 5.1.6.2 <u>Type</u>

#### ⚠ Notes ⚠

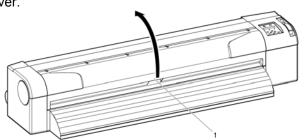
 For types and details of the spitting box absorbent, refer to "Supply list" in the Operation manual.

#### 5.1.6.3 Replacing steps

**Step 1** If the printer is powered ON, make sure that:

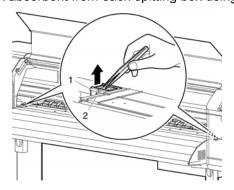
- Printing or other operations are not in progress.
- The operation panel display is Normal.

Step 2 Open the front cover.



N°	Name
1	Front cover.

**Step 3** Remove the spitting box absorbent from each spitting box using tweezers.

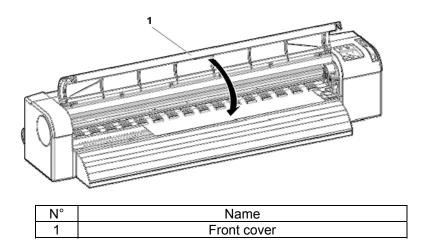


#### **△** Caution **△**

 Do not drop waste fluid when replacing the spitting box absorbent. If waste fluid comes in contact with the grid roller, the surface of the grid roller will be damaged, and the media feed function may be affected.

**Step 4** Install the new spitting box absorbent to each spitting box.

**Step 5** Close the front cover.



• Spitting box absorbent replacement is complete.

### 5.2 DONE BY AUTHORIZED MUTOH TECHNICIAN

This section describes the periodical part replacements and the periodical inspections required for this printer.

These periodical services ensure the stable printing quality of the printer.

### 5.2.1 Periodical replacement of parts

An authorized Mutoh technician must execute these replacements. These replacements are necessary to ensure the best printing quality output.

Part	Timing
Maintenance station	Once year
Wiper	Once year
Damper	Once year

### 5.2.2 Periodical Inspection Part List

Perform periodical inspections according to the table: "Periodical Inspection Part List" and perform cleaning and part replacement as necessary.

Part	Timing	Check point
Media guide L	Once year	<ul><li>Media dust accumulation</li><li>Foreign objects</li></ul>
Sub platen front surface	Office year	Damages
Timing fence	Once year	<ul><li>Media dust accumulation</li><li>Foreign objects</li></ul>
(CR encoder detection slit plate)	Damages	
Rail on the CR guide frame	Once year	Foreign objects
P_REAR sensor front surface	Once year	Media dust accumulation
	21.00 year	Foreign object

# **6 TROUBLESHOOTING**

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If the error is not included in any items of this section, then refer to **Error messages** and contact your local MUTOH dealer.

#### 

• When you have to receive product service within the warranty period, verify you have a warranty certificate. If the warranty certificate is not presented, the parts and service will not be included in the warranty and will be charged for.

If you have signed a maintenance service contract, then present the contract to the service technician.

### 6.1 MALFUNCTION AND FAILURE OF THE PRODUCT

This section describes malfunctions and failures of the product without displaying errors, and possible causes and countermeasures.

### 6.1.1 Problem at installation and introduction

#### 6.1.1.1 Initial ink fill is not performed

Possible cause	Remedy
The front cover is open, or media hold lever is up.	Close the front cover, or lower the media hold lever.
Are all four ink cassettes fully inserted?	Fully insert all four ink cassettes.
Is the waste fluid tank fully inserted?	Fully insert the waste fluid tank.
6.1.1.2 Ink does not come out after initial filling	
Possible cause	Remedy

Possible cause	Remedy
The ink cassette is cold or frozen.	Leave the cassette at room temperature for at least 3
Head clogging.	hours, and perform a head cleaning several times.
The power is switched OFF during initial ink fill.	Switch the power on again and continue initial filling.
Normal printing cannot be performed after initial filling.	Perform cleaning several times, and check it each time.

### 6.1.2 Cannot generate graphics.

#### 6.1.2.1 Do not actuate at all after power activation

Remedy
Connect the power cable.
Connect the cable to another outlet.
Close the front cover. Lower the media hold lever.
Fully insert the waste fluid tank.

#### 6.1.2.2 <u>Does not work after setting the media</u>

Possible cause	Remedy
The front cover is open, or media hold lever is up.	Close the front cover.  Lower the media hold lever.
The media is not loaded straight into the printer.  Are the ink cassettes inserted?	Load the media straight. Insert the ink cassettes.
Are you using compatible media?	Use compatible media.
Are you using the printer in an environment other than the one specified, such as in direct sunlight?	Only use the printer in an environment that is specified for use.
	d after a condition of the forms the analysis day

#### 6.1.2.3 An error is displayed and details not printed after sending data from the computer

Possible cause	Remedy
Is the type of computer selected correctly? Are the interface requirements and command mode the same on the computer side and printer side?	Verify that the settings on both the computer side and printer side are the same.

### 6.1.2.4 <u>Cannot use the computer in online mode via LAN</u>

Possible cause	Remedy
Is the network interface cable connected correctly?	Connect the network interface cable correctly.
Is network setting configured correctly?	Configure network settings correctly.
Are the printer's network settings correctly configured?	Match this product's network settings with the computer side environment.
Does the Data light on the operation panel light up after sending graphics data from the computer?	If the Data light does not light up, contact the computer manufacturer.

### 6.1.3 Media-related troubleshooting

6.1.3.1 <u>The media deviates or is torn during initialization.</u>

⚠ Notes ⚠

If the media is jammed or torn, remove it according to "The media is jammed".

Possible cause	Remedy
Are you using the compatible media?	Use the compatible media.
Is the loading position of the media correct?	Set the media correctly.
Is the scroller set correctly?	Set the scroller correctly.
Are there any foreign materials such as paper attached to the pressure rollers?	Clean the pressure rollers.
Are you using the printer in an environment other than the one specified, such as in direct sunlight?	Only use the printer in an environment that is specified for use.
Are you using folded, torn or rolled media?	Replace the media.
Does the media curl or float?	Use compatible media.  If non-compatible media is used, set the following items in the MediaSet Menu.  · Media  · Stiffness

### 6.1.3.2 <u>The media is crumpled during initialization.</u>

If the media is jammed or torn, remove it according to "The media is jammed".

Possible cause	Remedy
Are you using compatible media?	Use compatible media.
Is the loading position of the media correct?	Set the media correctly.
Is the media loaded at an angle?	Set the media straight.
Are there any foreign materials such as dust attached to the pressure rollers?	Clean the pressure rollers.
Is the printer used in an environment other than the one specified, e.g. near an air conditioner?	Only use the printer in an environment that is specified for use.
Are you using folded, torn or rolled media?	Replace the media.

### 6.1.3.3 The wrong media size is set during initialization.

Possible cause	Remedy
Are you using compatible media?	Use compatible media.
Is the media loaded at an angle?	Set the media straight.
When the media is set, does it curl upward?	Straighten the media or set a new media.
Are you using the printer in an environment other	Only use the printer in an environment that is
than the one specified, e.g. near an air conditioner?	specified for use.
Are you using media that has been printed already?	Use new media.

### 6.1.3.4 <u>Tracing paper or thin media is not detected.</u>

Possible cause	Remedy
Are you using compatible media?	Use compatible media.
Are you using the printer in an environment other	Only use the printer in an environment that is
than the one specified, e.g. in direct sunlight?	specified for use.

### 6.1.3.5 Media jams frequently occur.

### ⚠ Notes ⚠

If non compatible media is used, correct media feeding cannot be assured.

Possible cause	Remedy
Are you using compatible media?	Use the compatible media.
Is the media used in a place other than the specified environment?	Use the media in a dedicated environment.
Using old media?	Replace it with new media
Using media with fold, wrinkle, etc?	
Does the media curl or float?	Use compatible media.  If media that is not dedicated is used, set the following items in the MediaSet Menu.  · Media  · Stiffness

### 6.1.3.6 <u>The media veers during printing.</u>

Possible cause	Remedy
Are you using compatible media?	Use compatible media.
Is the loading position of the media correct?	Set the media correctly.
Is the scroller set correctly?	Set the scroller correctly.

### 6.1.4 Printing-related troubleshooting

#### 6.1.4.1 <u>Printing is partially stained or incomplete.</u>

### ⚠ Notes ⚠

Proper print quality may not be obtained with non-compatible media.

Possible cause	Remedy
Does the media include moisture?	Poplace it with now modic
Using the media with folds and wrinkles?	Replace it with new media.
Does the media curl or float?	Use compatible media. If media that is not compatible is used, set the following items in the MediaSet Menu.  · Media  · Stiffness

### 6.1.4.2 <u>The order of printing is incorrect (There are some places that cannot be printed).</u>

Possible cause	Remedy
Is the loading position of the media correct?	Set the media correctly.
Set the origin and print position?	Cancel or reset the settings of the origin and print position.

#### 6.1.4.3 Printing is blurred.

Possible cause	Remedy
Are you using the compatible media?	Use the compatible media.
Using thick and thin media?	Use the compatible media.
Using standard media?	Use the compatible media.
Is the media setup correct?	Set up the media correctly.
Printing on the printing surface?	Confirm the printing surface of the media and set it correctly.

### 6.1.4.4 White or black lines appear on the printing.

Possible cause	Remedy
Are you using compatible media?	Use compatible media.
Is the scroller set correctly?	Set the scroller correctly.
Are the nozzles in good condition?	Perform head cleaning.

### 6.1.4.5 Printing lines are not straight.

Remedy
Use a new ink cassette.
Use compatible media.
Perform alignment.
Perform media feed compensation

### 6.1.4.6 Printing lines are duplicated or are patchy.

Possible cause	Remedy
Are the head nozzles in good condition?	Perform head cleaning.

# **6.2 ERROR MESSAGES**

## 6.2.1 Status messages

This section describes the display during the printer operation.

When the product is operating correctly, the operation panel displays each operation status as below.

Message	Remedy
Ready to Print	Idling (Media is set).
Paper End	Idling (Media is not set).
Receiving [port*]	Receiving data. (* displays a port no.)
Converting [port*]	Analyzing data. (* displays a port no.)
Under printing	Printing.
Warming Up	Warming up the heater.
Cleaning **%	Cleaning the head. Please wait a while.
Ink Refill **%	Filling the ink. Please wait a while.
Washing	Cleaning the print head in the head cleaning process. Please wait a while.
Moving Origin Pos.	The print head is moving to the original printing position on the Origin setup menu. Please wait a while.
Confirm Position →E	The print head is moving to the original printing position on the Origin setup menu.  Press the [Enter] key.
Remove Cassettes	Cleaning the head.
** 1 (4) = 11( **	Insert the cleaning cassette.
** Initialling **  ** Press 2sec. **	Initializing the setting on the Initialization menu. Please wait a while.
	The [Cleaning] key or the [Nozzle Check] key is pressed for less than 2 seconds. Press the key for more than 2 seconds again.
Insert CleaningCart.	Filling the cleaning fluid
	Insert the cleaning cassette.
Insert InkCassettes	Filling the ink. Insert an ink cassette.
Transport Mode	Preparing for transportation. Please wait a while.
	Initializing the media.
Media: Type ** OK?	Please wait a while.
, , , , , , , , , , , , , , , , , , ,	(*** represents the setup media type.)
Paper Initial	
Cover Open	The front cover is open.
Lever Up	The media hold lever is positioned backward. Set the media.
Layout Receiving	After receiving print data, the printer is waiting for receiving the next data.  Displayed when the layout function is enabled.

### 6.2.2 Error message display and remedies

This section describes the details of the display when an error message appears and its remedy.

Error messages are displayed when certain failures occur during printer operation.

If an error message appears, the printer may display the following error message on the operation panel and stop operation.

When operation stops and the error is solved, the error message is cancelled and the printer restarts operation.

Message	Cause	Remedy
Undefined Paper	Failed in identifying the media. (Stops operation)	Reload the media.
Paper Slant	The media was not fed straight. (Stops operation)	Reload the media.
End Of Roll	The roll media has run out. (Stops operation)	Reload a new roll media.
[KCMY] InkNearEnd	Ink is running out. (Continues operation)	Prepare a new ink cassette.
[KCMY] Ink End	Ink has run out. (Stops operation)	Replace with a new ink cassette.
[KCMY] Cassette	Cassette is not inserted. (Stops operation)	Insert a genuine ink cassette.
[KCMY] Discharged	The ink is not initially charged. (Stops operation)	Charge the ink initially.
[KCMY] Dedicated media	A genuine ink cassette is not inserted. (Stops operation)	Insert a genuine ink cassette.
NearFullWasteInkTank	Waste fluid tank shortly becomes full. (Continues operation)	Replace the waste fluid tank.
FullWasteInkTank	The waste fluid tank is full. (Stops operation)	Replace the waste fluid tank.
Life Times [Head]	The operational life of the print head has almost expired. (Continues operation)	Contact MUTOH local dealer.
Life Times [Pump]	The operational life of the pump motor has almost expired. (Continues operation)	Contact MUTOH local dealer.
Life Times [CR Motor]	The operational life of the CR motor has almost expired. (Continues operation)	Contact MUTOH local dealer.
Life Times [PF Motor]	The operational life of the PF motor has almost expired. (Continues operation)	Contact MUTOH local dealer.

#### ⚠ Notes ⚠

- The colour inside [] in the error display represents the problem ink colour.
- If the "No Ink" and "No Cassette" errors occur simultaneously, "No Cassette" is displayed.

### 6.2.3 Data error display and remedies

This section describes the details of the display when an error message appears and its remedy. A data error appears if data communication between your PC and the printer has failed. If a data error occurs, the following error message appears on the operation panel and operation stops. When the cause of the error is solved, the printer starts operating again.

Message	Cause	Remedy
I** Error []	An error occurred when receiving data.	Check the communication requirements between the printer and your PC.

⚠ Notes ⚠

"\*\*\*" in the error message is the code N° that indicates what type of error occurred.

### 6.2.4 Command error display and remedies

This section describes the details of the display when a command error occurs and its remedy.

A command error is displayed if a certain failure occurs during analysis of the command data sent from your PC to the printer.

If a command error occurs, the following error message appears on the operation panel and operation stops. When the cause of the error is solved, the printer starts operating.

Message	Cause	Remedy
MH** Error []	An invalid command has been sent from the computer.	Check that the settings on your PC and the printer are the same.

⚠ Notes ⚠

- "\*\*\*" in the error message is the code N° that indicates what type of error has occurred.
- The command code representing the error occurred is indicated in [].
- For the settings on your PC side, refer to the Operating Guide attached with your PC.

### 6.2.5 Error requiring a restart

This section describes the details of the display when an error requiring a restart occurs and its remedy. An error requiring a restart is displayed if a fatal operational failure such as the following occurs.

- When an obstacle which prevents printing occurs.
- When a problem occurs with the electrical circuit (PCB, motor, sensor, etc.) of the printer.
- When a failure on the printer control program occurs.

If an error requiring a restart occurs, the printer stops operating after performing the following operations.

- 1. The power automatically shuts down.
- 2. All lights on the operation panel blink, and the buzzer rings continuously.
- 3. The error message is displayed on the operation panel.

Pressing any key on the operation panel stops the beeping.

For an error requiring a restart, operation will return to normal after removing the cause of the error and restarting the printer.

If the same error keeps appearing, contact your local MUTOH dealer. Be sure to mention the error code number when contacting us.

Message	Cause	Remedy
E** Error []	A problem that does not have a remedy.	<ol> <li>Remove obstacles such as paper scraps in the drive system.</li> <li>Check that the replaced items are correctly attached.</li> <li>Switch off the printer power, and turn it on again after more than 10 seconds.</li> </ol>



- "\*\*\*" in the error message is the code N° that indicates what type of error occurred.
- The command code representing the error occurred is indicated in [].
- For the settings on your PC side, refer to the Operating Guide of your PC.

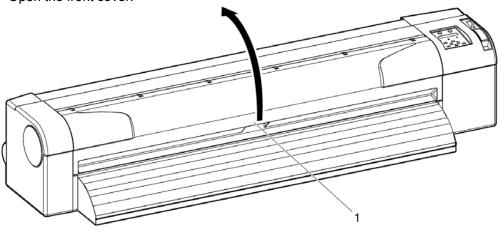
# 6.3 THE MEDIA IS JAMMED

When the set media is jammed, remove it according to the following procedures.

### **△** Caution **△**

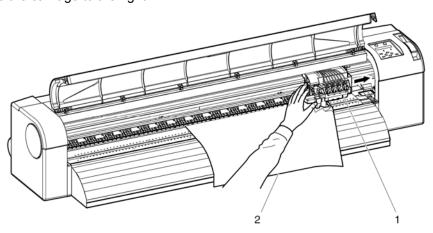
• Be careful that your fingers are not caught between the covers.

**Step 1** Open the front cover.



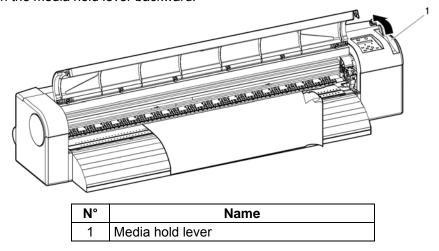
N°	Name	
1	Front cover	

**Step 2** Move the carriage to the right.

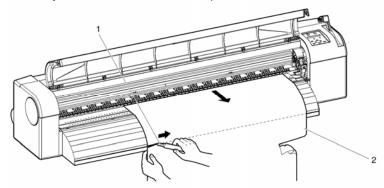


N°	Name	
1	Carriage	
2	Roll media	

**Step 3** Push the media hold lever backward.

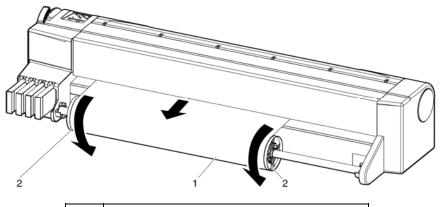


**Step 4** Pull the media to your side, and cut the torn part with a cutter blade.



N°	Name
1	Cutter blade
2	Roll media

**Step 5** Lift both end of the scroller, and gently rewind the roll media.



N°	Name
1	Roll media
2	Scroller

**Step 6** Remove all other remaining paper pieces in the printer.

**Step 7** If errors requiring a restart occur, switch off the printer, and switch it on again.